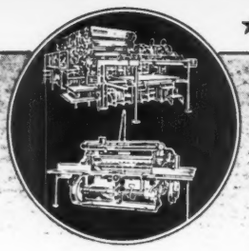
PRINTING EQUIPMENT Engineer

FEBRUARY 1945

• A technical publication for the mechanical executive responsible for printing production, equipment and supplies in the commercial, magazine, private plant and daily newspaper field.

POSTWAR PRESSES AND CUTTERS

★ ★ ★ ★ ★ ★ ★



THE immediate prewar products of Harris-Seybold were the best on the market. Years were required for their development. When the war started, a redesigning program had been only recently completed. Working under extraordinary conditions, Harris-Seybold equipment has delivered outstanding wartime service. It had to be *right* to do its job.

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a notable Ludlow contribution to effective typography . . .
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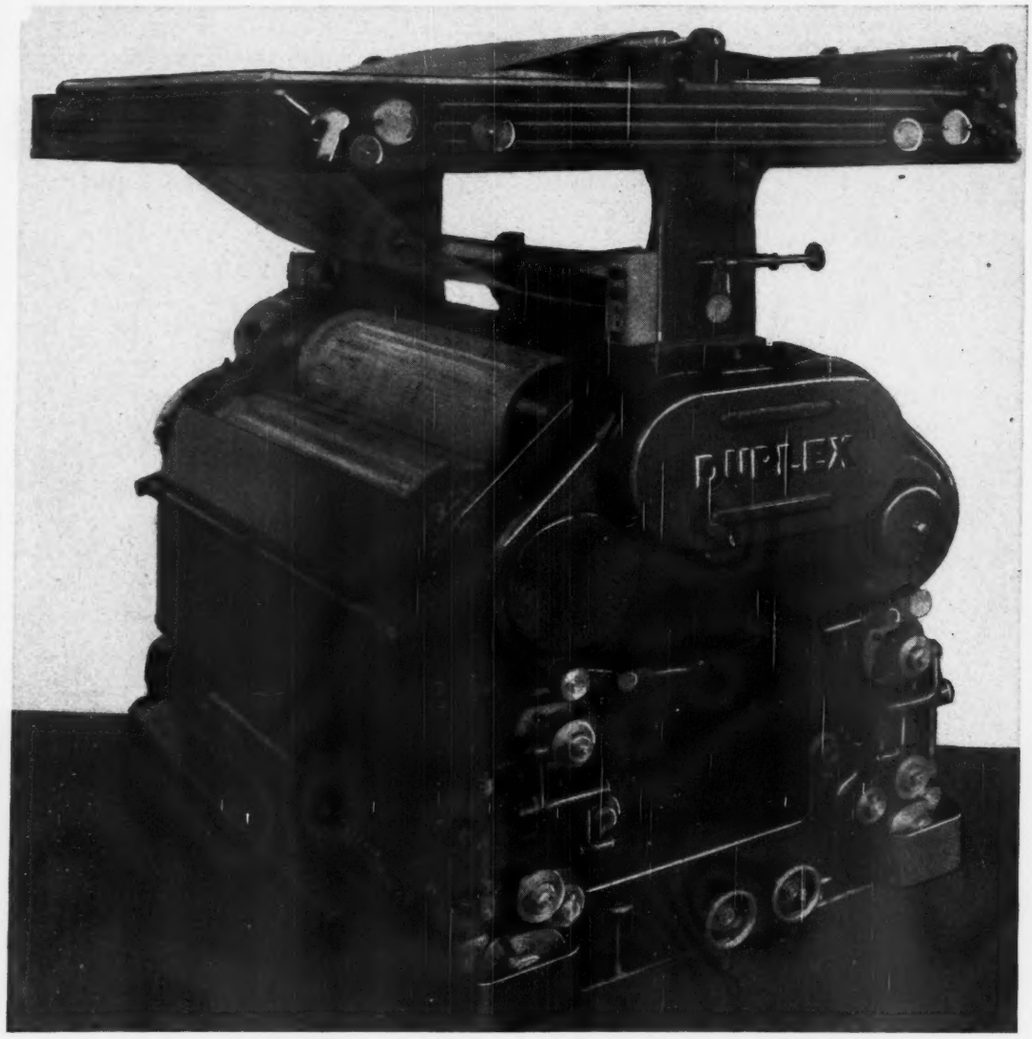

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PRINTING EQUIPMENT *Engineer*

Volume 69 Number 5

A technical publication for the mechanical executive responsible for printing production, equipment and supplies in the commercial, magazine, private plant and daily newspaper field.

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Printed in U. S. A.

Leading Articles

FEBRUARY

1945

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STANDARD BOOK ON ESTIMATING for PRINTERS—By Fred W. Hoch. Revised 1941 edition. This book is a primer for students and a reference for printers and estimators. Every printing plant should have a copy. Author explains all operations in commercial printing plant and shows production time allowance for each in hours and decimal hours. Size, 6 in. by 9¼ in., 268 pages, $3.75 per copy, cash with order.

PRINTING INKS—Their Chemistry and Technology—**By Carleton Ellis.** Bound in cloth, 6 in. by 9½ in., 560 pages, well illustrated. For printing executives, pressmen, photo-engravers, platemakers, ink manufacturers, chemists, paper-makers. Author stays close to printing plant. The solving of new production problems brought about by technological improvements, both in equipment and inks, created the urgent need for this book. Price $7, cash with order.

THE PRACTICE OF PRESSWORK—By Craig R. Spicher. We offer copies to our readers, at the special price of $4.00 per copy, cash with order. No printer should be without a copy (9000 copies printed).

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PHOTOGRAVURE—By H. Mills Cartwright. Covers all of photogravure's basic principles in concise and readable language. Rotogravure receives minor discussion but this is generally considered best textbook on photogravure process. Contains 202 pages, 34 illustrations, maroon cloth, size 6¼ in. by 9¼ in., $3.50 per copy, cash with order.

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HANDBOOK FOR PRESSMEN—By Fred W. Hoch. Book written by authority on all phases of flat-bed letterpress production for the practical pressman. Contains 248 pages, 26 illustrations and 24 charts, $3 per copy, cash with order.

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PRINTING EQUIPMENT *Engineer*

1276 W. 3 St., Cleveland 13, Ohio

TO HELP A BUSINESS MAN MAKE A BUSINESS DECISION

What do the facts add up to?

YOU'VE talked to your customers and prospects. They told you what they were planning. You know the size of your potential market and the productive capacity of the equipment you have.

These are basic facts... but they're only a platform to build on. What do the facts add up to? Where do you go from here? That is the decision a ***business man*** must make... and that business man is *you*.

Knowing the facts is essential. *Interpreting* the facts comes next. That requires sound judgment... knowledge of the experiences of others... an appreciation of the possible solutions... and wisdom to choose the best.

Here's where the man who represents ATF can help you. He knows what *can* be done now to procure equipment and he has comparative data and costs to show you. If you are a business man with a business decision to make, ask your ATF representative.

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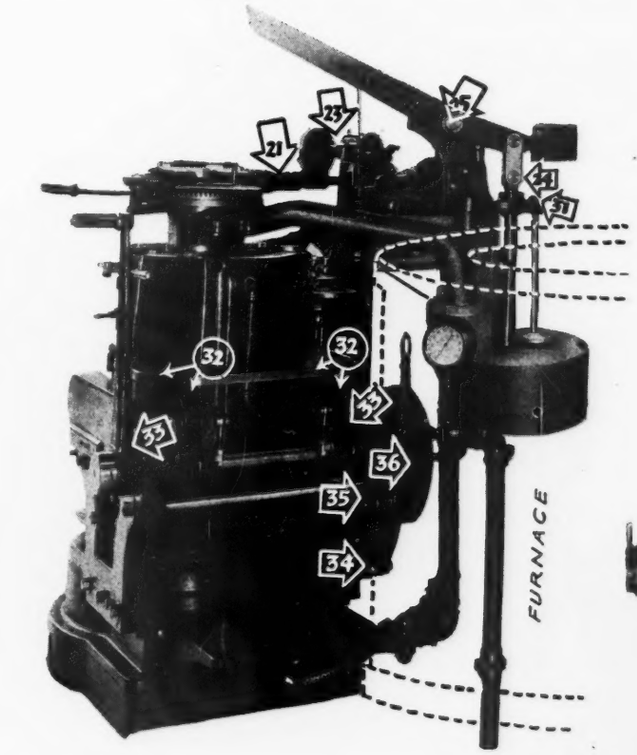
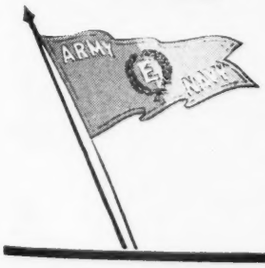
2	Driving Shaft Outer Bearing Bushing	SAE 30	D	14	Matrix Holder Bar Lower Bracket L&R	SAE 30	D	26	Pump Handle Latch	SAE 30	D
3	Driving Worm and Gear	600W	M	15	Lower Plate Fingers L&R	SAE 30	D	27	Cylinder Fixed Clutch Bushing	SAE 30	D
4	Saw Driving Shaft Bushing	SAE 30	D	16	Cylinder and Segment Ring	SAE 30	**	28	Cylinder Pinion Shaft Bearing (2)	SAE 30	D
5	Driving Shaft Bushings	SAE 30	D	17	Cylinder Lower Bearing	SAE 30	D	29	Cylinder Upper Bearing	SAE 30	D
6	Vertical Shaft Lower Bushing	SAE 30	D	18	Saw Drive Mitre Gears	Grease	M	30	Cylinder Clutch Handle	SAE 30	D
7	Saw Belt Tightener Bushing	SAE 30	D	19	Saw Drive Shaft Bushing	SAE 30	D	31	Pump Valve Rod	SAE 30	D
8	Saw Belt Idler Bushing (3)	SAE 30	D	20	Vertical Shaft Upper Bushing	SAE 30	D	32	Casting Box Toggle Links (2)	SAE 30	D
9	Saw Spindle Bushing (2)	SAE 30	D	21	Cylinder Clutch Shaft Bushings (2)	SAE 30	D	33	Casting Box Rock Shaft Bearing L&R	SAE 30	D
10	Cutting Saw	SAE 30	D	22	Timer, Worm and Worm Gear	SAE 30	D	34	Saw Hanger Cam Lever Link	SAE 30	D
11	Casting Box Rolls L&R	SAE 30	D	23	Timer Shaft	SAE 30	D	35	Saw Hanger Cam Lever	SAE 30	D
12	Upper Plate Fingers L&R	SAE 30	D	24	Pump Plunger Shaft	SAE 30	D	36	Saw Hanger Cam Roll	SAE 30	D

KEY: D, Daily; M, Monthly; ** Every other change of Mat.



REAR VIEW



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PLAINFIELD, N. J.

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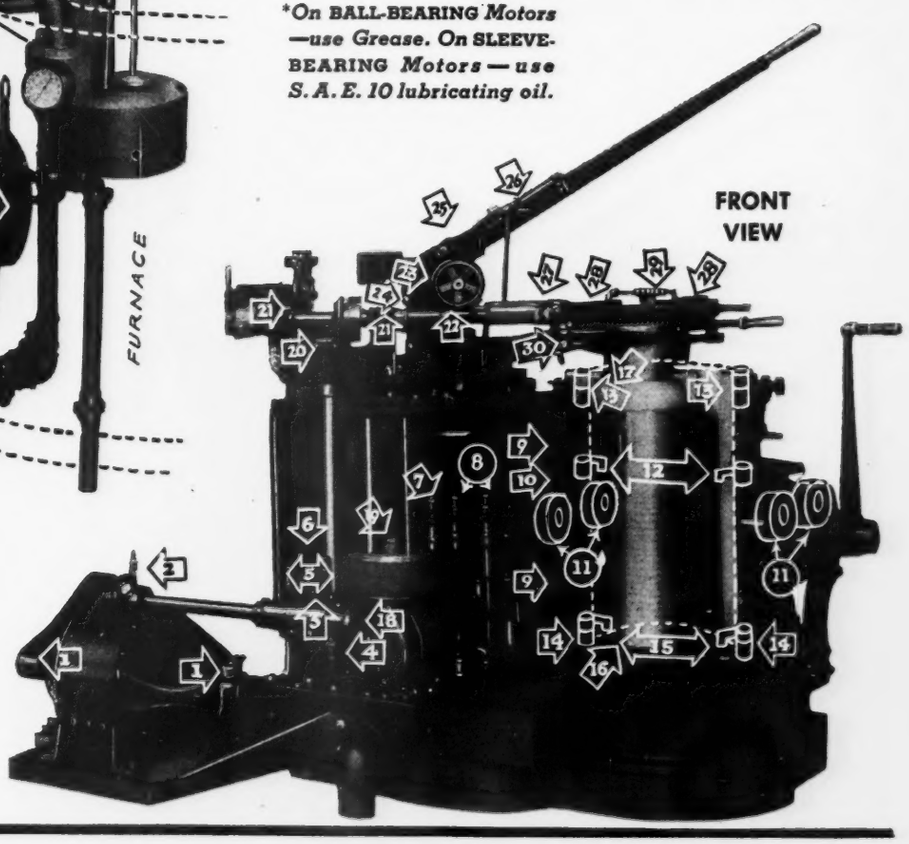
**On BALL-BEARING Motors —use Grease. On SLEEVE-BEARING Motors — use S. A. E. 10 lubricating oil.*

FRONT VIEW



ipi **KEEPING IN TOUCH** ipi

PREPARED BY INTERNATIONAL PRINTING INK DIVISION OF INTERCHEMICAL CORPORATION • FEBRUARY, 1945

CALIFORNIAN WINS ESSAY CONTEST

$500 War Bond to Charles Crum

The eighth annual essay contest, sponsored jointly by International Printing Ink and the National Graphic Arts Education Association, has just drawn to a successful conclusion with the awarding of first prize of a $500 War Bond to Charles Crum, of Sweetwater Union High School, National City, California. Other awards were made to students from fourteen different states and Canada. A special cup was awarded for the past printed essay.

The subject of the essays was "Printing and A Free Press", a theme of vital importance to all of us who are fighting to preserve those principles of free speech and free expression in which we believe.

Response to the contest was enthusiastic and of a high degree of excellence. This should be especially gratifying to the Graphic Arts industry as an indication of the widespread interest which America's students have in the printing field.

NEW USES FOR ANILINE PRINTING
Expansion In Quality Printing Field Predicted

Advances in technique and equipment for aniline printing have widened its scope for many applications in the quality field. The development of better rubber plates and special inks now makes exceptional printing precision possible in the production of bread wraps, foil and cellophane bags and wraps, gummed tape and wall paper, as well as the many new plastics and synthetics which are so well suited to aniline printing. Today, aniline printing actually produces some beautiful and unusual effects on certain materials which cannot be obtained in any other way.

Through its development of pigment dispersions, new vehicles and the Anilox* method of ink distribution, IPI has played an important part in the growth of aniline printing and in the development of inks of various formulations to fit each particular problem involved in printing on a variety of different surfaces.

Whatever your present interests may be, if you have not investigated the possibilities of aniline printing, we suggest you get in touch with your local IPI representative. He can give you a better picture of this promising postwar field and can keep you informed on new developments.

Identification Inks Get A Plug

A letter which we have just received is good testimony to the serviceability of IPI marking inks in all climates. From the wilds of New Guinea, a young G. I. writes, "Here is a plug for IPI Identification Ink: With all the wear and tear and continuous washing our uniforms get, the ink never fades and is as legible as when it was first applied."

We are grateful for this unsolicited praise. IPI marking inks are also performing well in other war jobs on textiles, metal containers, ammunition shells, glass, lacquered surfaces and other applications.

See Your Ink Maker First

From the question-and-answer section of a recent publication, we note a question about running colored inks. The answer was essentially "Obtaining the proper ink to work by any sequence is a job for the ink maker".

We feel the same way at IPI. Our many service stations throughout the United States are there mainly to serve you by supplying inks to fit your needs and by supplying help and advice on the best way to run those inks. Whatever your problem — color matching, sequence of impressions, special inks—a trained, experienced IPI representative is ready and willing to lend assistance.

FREE COLOR GUIDES

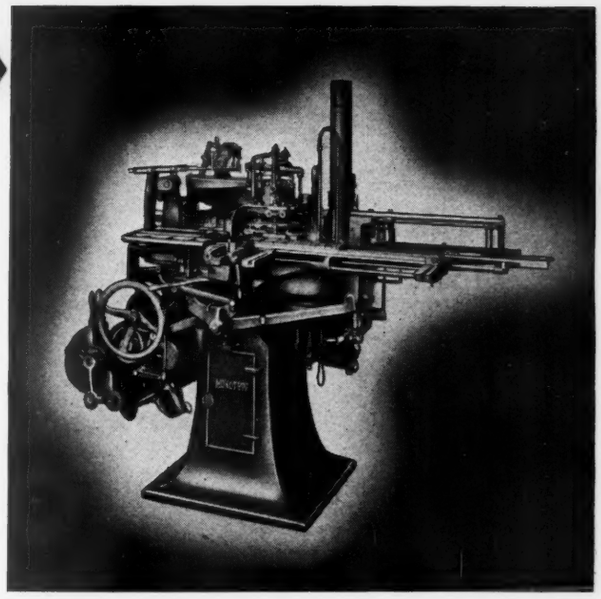
Letterpress and offset color guides, each made up in both file size and easy-to-carry pocket size, a newspaper web press color guide and a specimen book of IPI* Everyday* inks are now available to all users of printing and lithographic inks. Write for copies to International Printing Ink, Empire State Building, New York 1, N. Y.

*Reg. U. S. Pat. Off.

PUT A WAR MESSAGE INTO EVERY PIECE OF PRINTING
For source material, write GAVC, 17 E. 42d Street, New York

AFTER THE WAR: A MONOTYPE TYPESETTING MACHINE FOR YOUR COMPOSING ROOM

16 Outstanding Features



1 — Clean, readable printing of even color — profitable to both the printer and the buyer of printing.

2 — Appropriate type faces and decorative material, properly set and spaced.

3 — Type of uniform height reduces make-ready to an absolute minimum.

4 — Type and rules print without punching.

5 — Every job of printing done from new perfect type.

6 — Unlimited supply of new type, ornaments, borders, rules, quads, spaces, leads and slugs — always in the very best condition for good printing.

7 — All the advantages of Monotype-set typography over other methods of setting job and commercial work.

8 — Short fonts and picking from live jobs a thing of the past.

9 — Time saved in original composition and less time consumed in making corrections.

10 — The necessity of replacing bad letters in type forms entirely eliminated—"picking" from live forms a thing of the past.

11 — Unbroken rules and borders, perfect alignment, perfect register, solid lock-up and squared-up forms.

12 — Straight-matter, tabular work, ruled forms and intricate composition of the highest quality produced quickly and cheaply.

13 — The fastest method of composition on commercial job printing.

14 — Savings begin with composition and continue through make-up, make-ready, press-work and binding.

15 — Complete non-distribution of type, rules and spacing material.

16 — An adequate selection of the best modern and traditional type faces.

NOW IS THE TIME TO BUY WAR BONDS

LANSTON MONOTYPE MACHINE COMPANY

MONOTYPE BUILDING, TWENTY-FOURTH AT LOCUST STREET, PHILADELPHIA, PENNA

Set in Monotype Faces: 20th Century and Stymie Families and Artscript.

EXTRA *THE DAILY*

VOL. 45 NO. 40 ANY TOWN

GOSS PRESENTS

GOSS Printing Press Company Announces — The Press of the Future in a World of Color—A Truly Postwar Newspaper Press Meeting the New Demands for Greater Flexibility of Color Production — Functionally Streamlined and with Smoother Operation and Higher Quality Printing at High Speed Insured.

Chicago, February 10, 1945.—Newspaper men will be amazed at the improvements which GOSS engineers have built into the HEADLINER Newspaper Press—designed to meet all requirements of the newspaper in the postwar world. Knowing that color will be used to hitherto unheard of limits, flexibility of color production and improvement in quality were the main considerations in its design.

MAXIMUM IN COLOR

With the HEADLINER the newspapers of America will be able to give advertisers a maximum of color in the paper and compete in like quality with magazine publications.

COLOR BY PORTABILITY

In order to allow two, three or even four colored inks to run on the same plate cylinder, portable color fountains, designed for mounting within the guards of each unit, have been designed by GOSS engineers for use with the HEADLINER. Thus the exact matching of the various tones of colored inks as demanded by national advertisers will be readily accomplished.

FLEXIBILITY OF COLOR PRODUCTION

The maximum choice of page position for color is obtained in the GOSS HEADLINER since either, or both, printing couples of the units can be made reversible and extra color cylinders installed over any unit. These color provisions can be made readily now, or in the future, through the attachment of the necessary parts.

GOSS COLORTROL

GOSS COLORTROL the waist-high button operated ink control station eliminates stooping or kneeling to regulate ink feed, or page cut-off, and allows pre-setting of ink feed, increase or decrease of ink for full page uniformly — all from one station.

OTHER NEW AND EXCLUSIVE GOSS FEATURES

Additional items to be found in the new HEADLINER Newspaper Press which features improvements in newspaper printing which GOSS now presents for the first time to the newspaper world — are the Continuous Feed Ink System, GOSS Colortrol and Tension Plate Lock-up. The latter two items are optional features.

NEW STREAMLINED STYLING

Distinguishes this latest GOSS achievement. Units and folders are enclosed to insure greater safety, better appearance, accessibility and maintenance.

FULLY ENCLOSED AUTOMATIC LUBRICATION

Units and folders are completely enclosed with all gearing, vibrating motions, and drives operating in oil. The only totally enclosed folder with automatic oil lubrication and with the exclusive feature of the entire folding motion running in oil for protection from dirt, paper dust, and grit.

PRELOADED CYLINDER AND FORM ROLLER BEARINGS

The *first* newspaper press with plate and impression cylinders operating in PRELOADED roller bearings. Now this time-tested feature is applied to the form rollers, insuring improved printing through freedom from roller vibration.

TENSION PLATE LOCK-UP

This patented and exclusive feature now makes possible a better quality of printing, regardless of speed, than ever before obtained from a newspaper press. Locked to the cylinder under tension the plate provides a perfect printing periphery giving a continuous even impression, longer life of press blankets, reduction in paper breaks, and improved first impression printing.

CONTINUOUS FEED INK SYSTEM

This simple, but positive control of ink feed outmodes all other ink feed systems used for years by press manufacturers. No more variation regardless of speed change—designed to keep pace with new developments in ink—the answer to the future of good printing.

NOW, GOSS FLIES 5-STAR NAVY BU

The sixth Navy E a adds the fifth star to o awarded by the Navy ber, 1944. GOSS Prec Recognized.

When writing the advertiser please mention PRINTING EQUIPMENT *Engineer*—February 19

NEWSPAPER

FINAL

THREE CENTS

U. S. A.

HEADLINER PRESS

The Newest in a

LINE *of* GREAT GOSS PRESSES

GOSS

THE GOSS PRINTING PRESS COMPANY

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PRESSMEN, PLEASE NOTE!

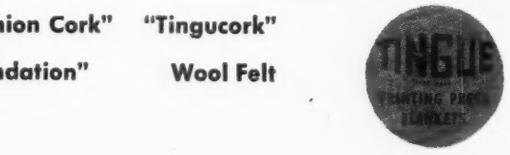
Take a tip from one who knows all about press packing, and get in touch with Tingue, Brown! Their "Cushion Cork" and "Tingucork" combination gives better impressions from wartime plates on wartime paper. "Cushion Cork's" resiliency complements "Tingucork's" density to make a press packing that can't be beat!

You'll find many other serviceable products at Tingue, Brown—blankets and drawsheets to meet every pressroom requirement.

See for yourself how Tingue Press Packing and Drawsheets stand up under strenuous use. Talk to Tingue today!

TINGUE, BROWN PRODUCTS:

"Cushion Cork" "Tingucork"
"Foundation" Wool Felt



Top Improved Satisfaction
Gold Tympan Cloth Combino

TINGUE BROWN AND COMPANY

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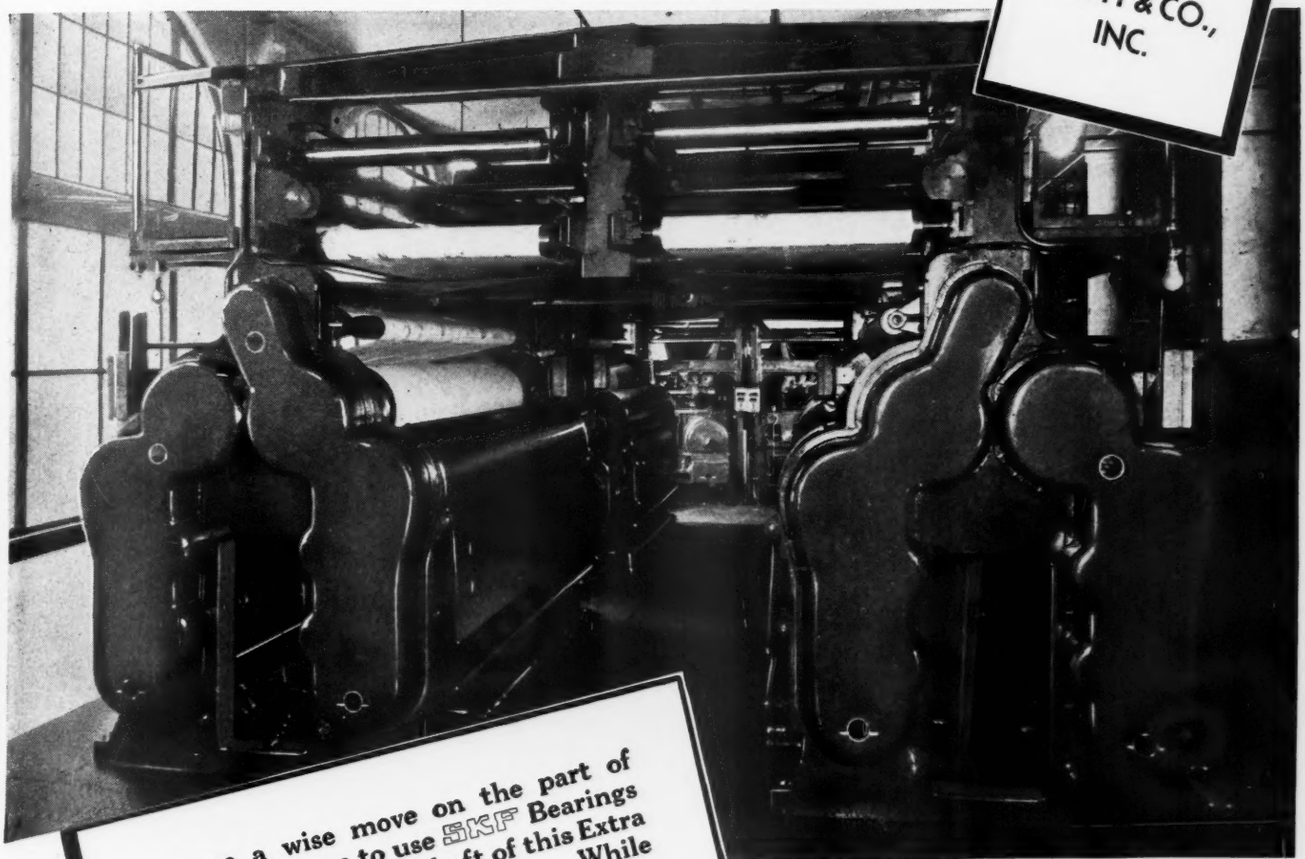
CANADIAN SALES AGENTS
ROSS WHITEHEAD & CO., LTD.
MONTREAL, CANADA

SCOTT NEWSPAPER PRESSES

PRINT FAST

BUILT BY WALTER SCOTT & CO., INC.



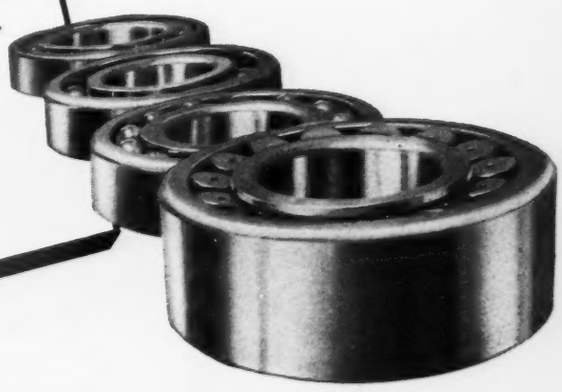
It was a wise move on the part of Scott engineers to use SKF Bearings on the main driving shaft of this Extra High Speed Newspaper Press. While this shaft makes four revolutions for every printing cylinder revolution, SKF's run easily . . . permit shaft deflections without binding . . . insure low friction for low starting torque and a quick pick-up. Quiet operation not only eases the strain on the press operator's nerves, but also assures freedom from wear. Production stays UP and costs down. Proof that SKF puts the right bearing in the right place.

5718

SKF INDUSTRIES, INC., PHILA. 34, PA.

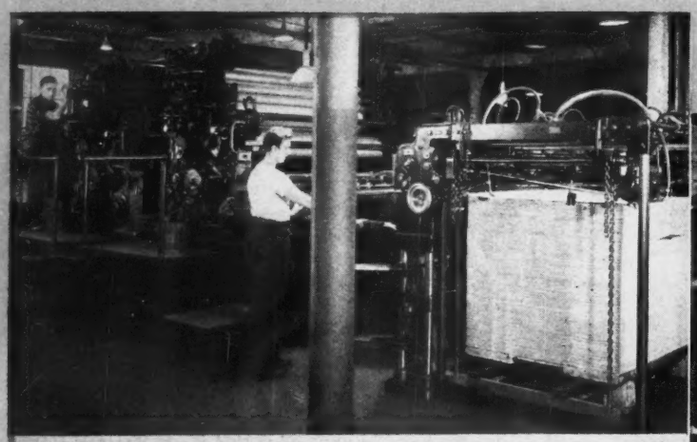
SKF

BALL AND ROLLER BEARINGS

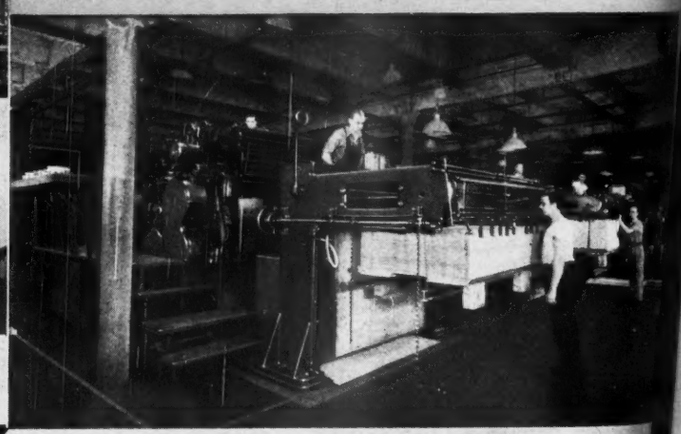


Says Joseph P. Thomas, President, U. S. Printing & Lithograph Co.

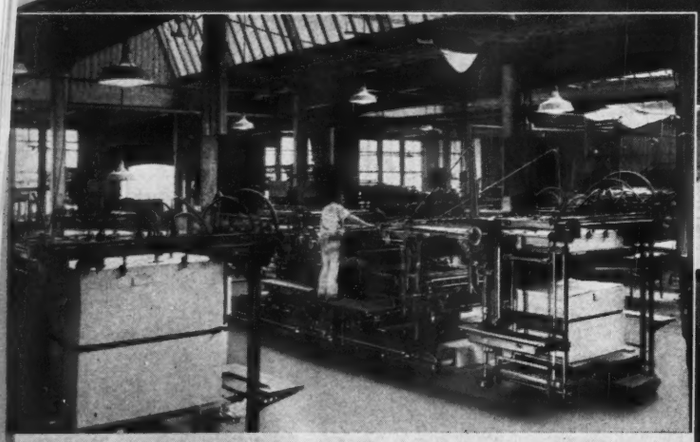
"GRATIFYING.... the dependability and durability of MIEHLE PRESSES under heavy requirements of wartime operation"



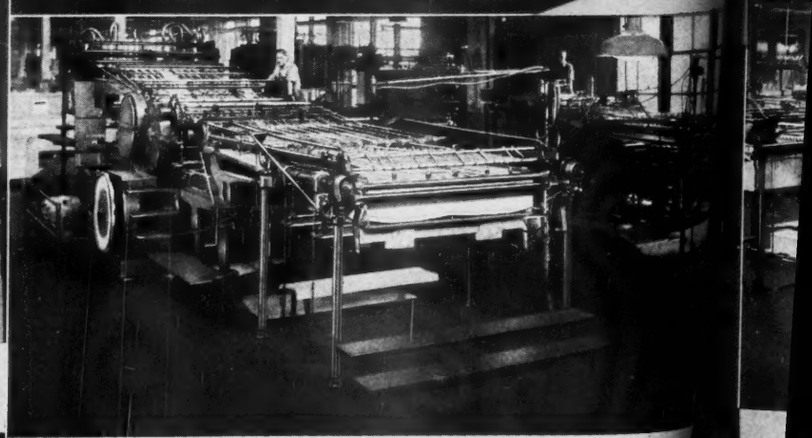
Miehle No. 69 two-color offset press in Brooklyn plant of U. S. Printing & Lithograph Co.



Battery of Miehle single-color and two-color offset presses in the Brooklyn plant.



Miehle letterpress equipment in the Baltimore plant of the U. S. Printing & Lithograph Co.



Two Miehle 5/0 two-color presses also installed in the Baltimore plant.

THE UNITED STATES PRINTING & LITHOGRAPH COMPANY

AMERICAN LITHOGRAPHIC DIVISION
ATLANTIC LITHOGRAPHIC AND PRINTING DIVISION
DONALDSON LITHOGRAPHING DIVISION

AND DIVISIONS

ERIE LITHOGRAPHING & PRINTING DIV.
PALMER ADVERTISING SERVICE DIVISION
W. F. POWERS DIVISION
THEO. A. SCHMIDT LITHOGRAPHING DIV.

NORWOOD STATION
CINCINNATI, OHIO

November 27, 1944.

Mr. R. Ford Bentley,
Miehle Printing Press & Manufacturing Co.,
14th St. and S. Damen Ave.,
Chicago 8, Ill.

Dear Mr. Bentley:

It will be forty-two years ago this January, 1945 that the first Miehle press was installed in our Brooklyn plant. Today, Miehle press equipment is giving dependable and efficient service in four of our plants. At Brooklyn and Erie we have Miehle offset presses in use. At Baltimore and Cincinnati, Miehle letterpress equipment is used almost exclusively.

Over this period of more than forty years, we have been very well pleased with the dependable operation of Miehle presses. During the past few years, the dependability and durability of Miehle equipment has met the unusually heavy requirements of wartime operation with gratifying results.

Likewise, we can not speak too highly of the fine service of your organization at all times in keeping our Miehle equipment operating at top efficiency. The combination of sturdy equipment, well engineered and satisfactorily serviced has made the Miehle name a symbol of dependable operation and efficient production in "U-S" plants. We look forward to this continued relationship in the years to come.

Very truly yours,

THE UNITED STATES PRINTING & LITHOGRAPH COMPANY

Jos. P. Thomas

Jos. P. Thomas,
President.

JPT:HM

Two Miehle 46 two-color presses at Baltimore, one with modern chain delivery.

Make sure your next presses will be Miehle Presses, whose dependability, durability and performance will be even more gratifying in the years ahead.

MIEHLE

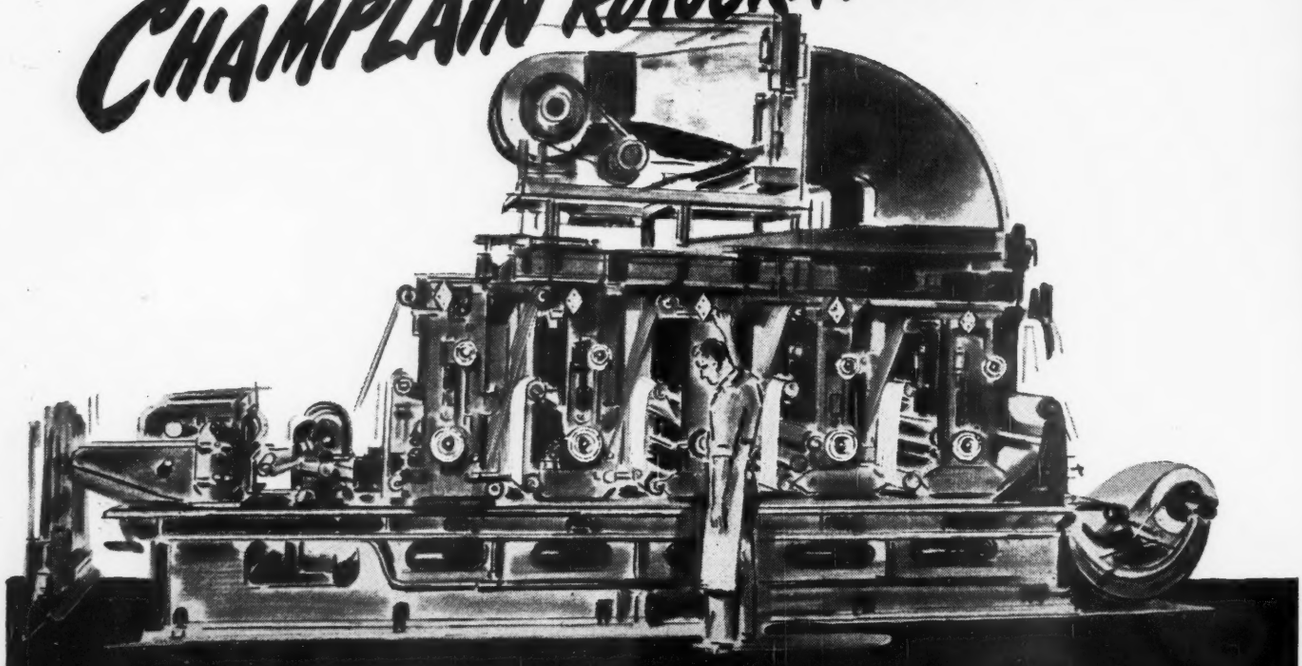
PRINTING PRESS & MANUFACTURING CO.

14th St. & Damen Ave., Chicago 8, Ill.

ONE CONTINUOUS OPERATION

1 2 3 4 5 ..COLORS

CHAMPLAIN ROTOGRAVURE PRESS



INSTANT drying gravure inks make it possible for you to print any number of colors, one on top of another, and fabricate or rewind the printed stock, without offset in one continuous operation. The simplicity of the gravure principle puts an end to many of the difficulties of register control encountered when drying time must elapse between printing of colors or between printing and fabricating.

With the Speedry enclosed ink fountain (a patented Champlain feature) the ink remains uniform, no splashing onto the web is possible and the fountain protects the ink from foreign particles. Highly volatile solvents may be used without fear of evaporation. A wide variety of stocks, including cellophane and glassine, can be printed successfully in multi-colors in one continuous operation.

Write today for booklet entitled "Advantages of Rotogravure for Package Printing."

COMPANY, INC.

SUBSIDIARY OF THE FRED GOAT CO., INC.

636 ELEVENTH AVENUE . . NEW YORK 19, N. Y.

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Federated *Process* Type Metals are clean, possess excellent fluidity and will produce slugs and type of solid body and sharp face.

Clogging of type casting machinery is caused by dross. Less dross means less build up. The Federated patented process assures a low drossing type metal essential to trouble-free operation. Dross accumulation in the shop will be at a minimum.

Clean metal, both original and replacement stock, will permit a greater latitude in operating conditions, longer metal life and lower cost.

Our metal and service are at your command.

FEDERATED
PROCESS TYPE METALS

- LINOTYPE
- MONOTYPE
- STEREOTYPE
- INTERTYPE
- ELECTROTYPE
- COMBINATION
- SPECIAL ALLOYS
- COPPER ANODES
- MOR-TIN-METAL (an adjusting alloy)
- SAVEMET (a compound for recovering metal from dross)

• Available in bars, ingots, pigs or in standard feeder form. Prompt delivery. Dross drums furnished free of charge. F.O.B. refineries.

• The methods used in the manufacture of Federated process type metals are protected by U. S. Government patents.

FMD

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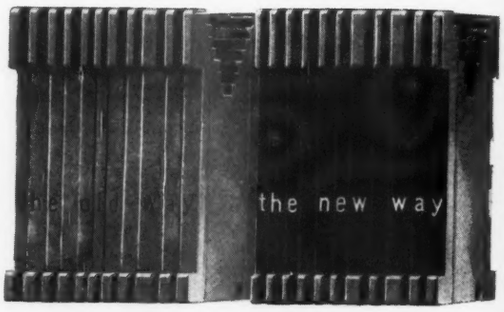
METALS DIVISION

AMERICAN SMELTING and REFINING COMPANY

120 BROADWAY, NEW YORK (5) N. Y.

Nation-wide service with offices in principal cities

WITH BLACK & WHITE I CAN SET MORE CORRECT LINES...EASIER



—and *you* cut costs at the same time you cut errors, because Matrix Contrast Service enables linecasters to "see what they set" at a glance. Tests in representative plants have shown that Black and White treated matrices reduce errors up to one-third—sound economy any time, but especially valuable now with the shortage of skilled linecasting machine operators.

With Black and White, errors are easily discernible *before* lines are cast! One-third less time wasted because of errors! Costs down! Production up!

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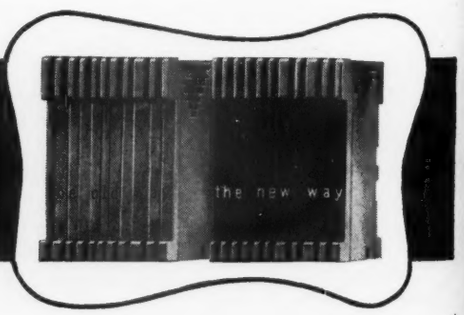


PRINTING EQUIPMENT *Engineer*
FEBRUARY 1945

Unity in the Graphic Arts may be achieved if proposal is accepted — United Typothetae of America to become known as Printing Industry of America, Inc.

WITH the avowed purpose of achieving unity in the printing industry an agreement was reached in Washington, D. C., January 16 and 17, between representatives of the United Typothetae of America and the Joint Committee on Government Relations of the Commercial Printing Industry.

This agreement was approved unanimously by the Management Committee of the UTA, at its meeting January 22 and 23 in Washington. Under the plan the United Typothetae of America, now in its 59th year, will become known as Printing Industry of America, Inc. The present charter of the UTA, one of the nation's oldest trade associations, will form the corporate base for the enlarged organization. The by-laws and organizational structure will be changed to create a base for a stronger, more representative trade association for the commercial printing industry.

Participating in the successful unity conference were: Raymond Blattenberger, Philadelphia; Donald L. Boyd, Huntington, West Virginia; and Robert H. Caffee, Pittsburgh, representing the United Typothetae of America; Carl Dunnagan, Chicago; James F. Newcomb, New York; and Ralph Thomas, Detroit, representing the Joint Committee on Government Relations of the Commercial Printing Industry. Henry P. Fowler, general counsel of the United States Chamber of Commerce, served as adviser to the group.

HAROLD W. HILL
President, United Typothetae of America

The recommendations, when approved by the UTA membership, will bring together in one organization the largest and strongest groups in the industry. Membership in the enlarged organization will be open on a democratic basis to all industry groups not now affiliated with the UTA or the Joint Committee.

Provision has also been made for the inclusion on an autonomous basis of employer associations concerned solely with labor matters. These associations are to be governed by their own boards of directors and are to have representation on the board of the parent organization through directors of their own choosing.

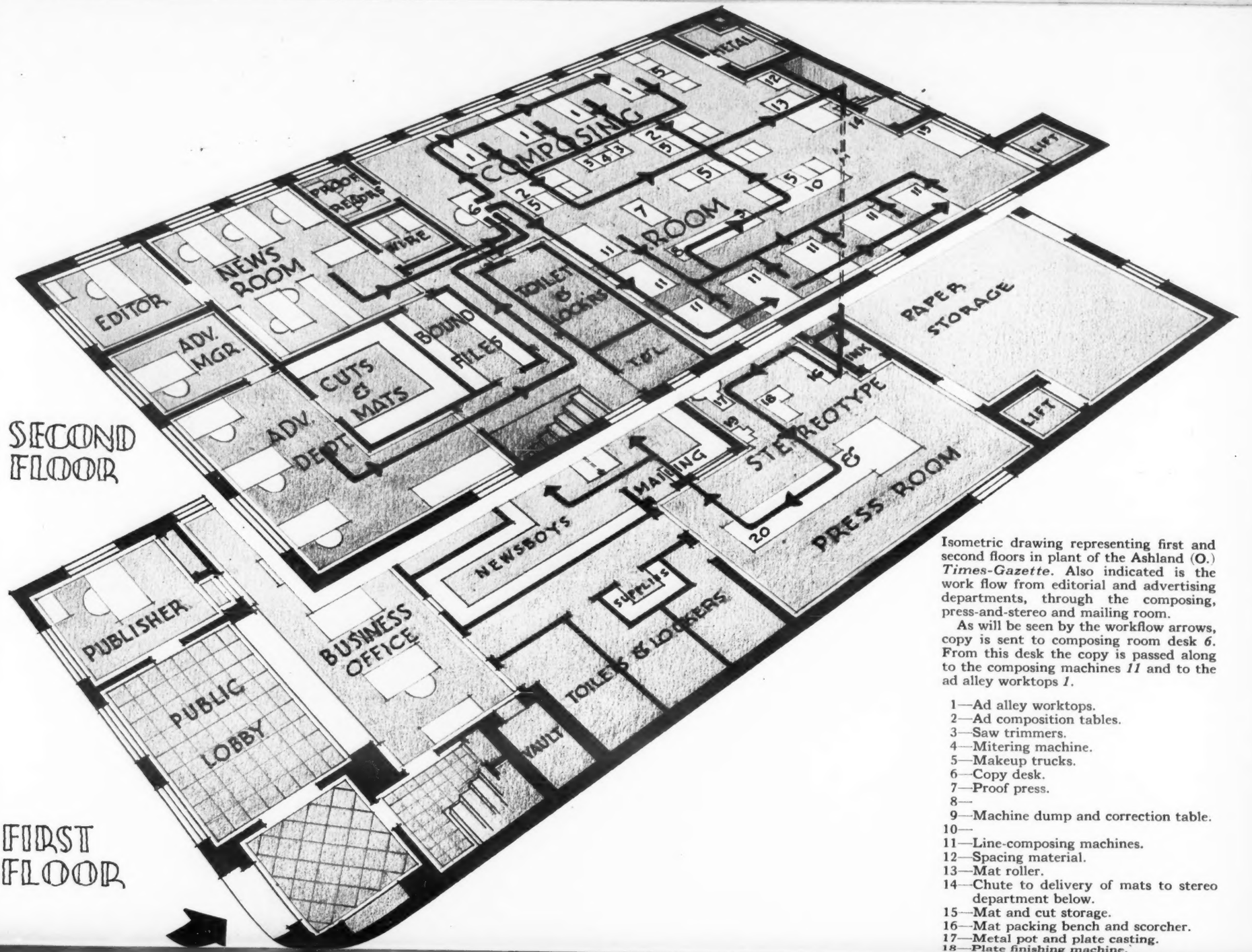
Plans of the enlarged organization call for strengthening existing services to the printing industry and providing a program of public and industrial relations. The organization will seek to promote the increased use of printing and to create a more favorable attitude toward the printing industry on the part of buyers of printing, government officials, educators, and the general public as well as to promote harmony and cooperation within the industry, including the allied trades and suppliers.

These increased services for the benefit of members and member associations will be made possible by the greater financial and manpower resources available through the enlarged organization. An expanded educational program will also be included.

Another function of the association will be to maintain an information center to supply the printing industry, other industries and the government with facts and figures about the printing industry.

James F. Newcomb, a member of the unity committee and co-chairman of the Joint Committee, was enthusiastic in his praise of the cooperative spirit displayed on both sides. He said, "I feel that we have come a long way toward a unified industry. Now that we are in complete agreement on principle, the committee will be able to work out the details quickly and effectively. As an industry we are ready to move ahead vigorously and promptly."

Harold W. Hill, president of the United Typothetae of American, was equally optimistic. "This is more than just the beginning. The thing we have hoped and worked toward for years is almost an accomplished fact. The fine spirit of cooperation shown by the committee, can, we believe, be injected into the whole industry structure. It will mean a better industry."



Isometric drawing representing first and second floors in plant of the Ashland (O.) *Times-Gazette*. Also indicated is the work flow from editorial and advertising departments, through the composing, press-and-stereo and mailing room.

As will be seen by the workflow arrows, copy is sent to composing room desk *6*. From this desk the copy is passed along to the composing machines *11* and to the ad alley worktops *1*.

1—Ad alley worktops.
2—Ad composition tables.
3—Saw trimmers.
4—Mitering machine.
5—Makeup trucks.
6—Copy desk.
7—Proof press.
8—
9—Machine dump and correction table.
10—
11—Line-composing machines.
12—Spacing material.
13—Mat roller.
14—Chute to delivery of mats to stereo department below.
15—Mat and cut storage.
16—Mat packing bench and scorcher.
17—Metal pot and plate casting.
18—Plate finishing machine.
19—Trimming block.

TROUBLESOME PROBLEMS . . .

eliminated in specially built small daily newspaper plant — Utility of features vindicated by time — Workflow follows simple and direct path

By ROBERT W. DICKERSON*

**Div. of Maier-Outcalt-Dickerson & Associates, Architects and Engineers, Cleveland, Ohio.*

LABOR DAY week-end, 1931, was a red-letter occasion in the history of the *Times-Gazette* at Ashland, Ohio. In the progress schedule for the new plant, which had been under construction since spring, this particular week-end had been designated as "M" day, and "M" day in this instance, meant moving day. In the time between the finish of the press run on Saturday and press time on Tuesday the equipment in the old plant, including the press, had to be dismantled, moved to the new building and set up ready for operation. And, it was.

To have planned a new home for a newspaper, and to have watched its progress from the first shovelful of excavation to the last brushful of paint is an interesting and thrilling experience. To have played a part in the transition from the old plant to the new, is more of the same. But, to have occupied and operated a plant for more than twelve years, and to have found that it measured up to every hope and aspiration that had been built into it—that is soul-satisfying realization. That is the opinion Edgar Koehl, publisher, expressed a few weeks ago when he said "I've seen a number of new plants since we built this one, but I haven't yet seen one I'd trade it for even up".

In the planning of the *Times-Gazette* plant these objectives were kept constantly in mind: (a) an efficient and economical newspaper manufacturing operation; (b) a building which would express regard for the aesthetic life of the community and, in so doing, build respect and prestige for the paper; (c) accomplish these ends within justifiable economic limits. They were realized to a most satisfying degree, and are principles which should govern the planning of any comparable structure.

The accompanying isometric drawing of the floor plans of the plant will show more clearly than many words the directness with which the work flows through the daily production operations. From their points of origin in the News Room and Advertising Department the copy moves directly to the foreman's desk in the Composing Room. From here it is distributed to the printers, for hand and machine composition. From the time the copy reaches the printers the movement of the work is always forward, toward the final page assemblies and the forming of the page mats. The page mats reach the Stereotype Department on the floor below through a metal chute. This chute terminates in a curved end which breaks the fall of the mat, prevents damage, and delivers it to the mat packing bench. From that operation to the scorcher, the casting box, the finisher, the trimming block and to the press, progress is direct and fast.

The space used for the storage of newsprint is reached from a street at the rear of the plant. It provides ample storage capacity for two carloads of paper and is closed off from the rest of the plant so that proper conditions of temperature and humidity can be maintained readily. In cold weather the paper for each day's run is moved into the pressroom in time to reach plant temperature before being loaded on the press. A storage closet, heated with pipe coils, is provided for ink in the space below stairs. Ink thus stored is always in a good state of fluidity for use, and clinging in drums is reduced to a minimum.

From the press the papers reach the Mail Room via a spring wire paper conveyor. Here they are either prepared for mailing, or are passed over the counter to the carrier boys. In this plant the problems generally inherent with carrier boys have been reduced to a minimum. The boys have their own entrance, and their own space, including toilet facilities. In bad weather they can wait comfortably for press time, finding such means for the passing of time as only such fellows can, and without the possibility of damage to the plant or injury to themselves. They can go no further than the confines of their own space, and all appointments of that space have been designed to withstand rough usage.

A feature of the provision for carrier boys which has worked out well is the opening between their space and the Business Office. This opening, which occurs just above counter height, is closed by a door, controlled from the office side. On the boys' side it is fitted with hooks on which the rings holding the customers' cards are hung. The cards are thus available both to the office and to the boys. The weekly financial settlements of the boys are also transacted through this window. Miss Bertha Kerr, Circulation Manager, had much to do with the planning of this feature.

Those functions of the paper which relate to the public are made readily accessible. A spacious and attractive Public Lobby is separated from the Business Office by a counter. It also provides access to the offices of Mr. Koehl and Robert Beer, Assistant Publisher. The Public Lobby is reached through an Entrance Lobby, and those having business with either the Advertising Department or the Editorial offices can reach those spaces by the stair which leads to the second floor.

Toilet and locker rooms occupy interior space which lacks natural light and air. Simple and inexpensive mechanical ventilating apparatus maintains these spaces in far better condition than is usually found where natural means are depended upon, and desirable outside space is not sacrificed.

A fireproof vault insures safe storage of records and accounts, and a rubber-tired book truck makes the daily removal and return of these books simple and easy.

The melting and reconditioning of metal is frequently the source of smokes, gases, odors and general contamination of all adjacent spaces. In this plant a small room at the rear of the Composing Room accommodates the equipment for melting and casting linotype pigs and for metal conditioning. During the progress of such work the door seals off this space and prevents the escape of the nuisance features to the rest of the plant.

Basement space sufficient for the heating plant and fuel storage is provided below the Stereotype Department. Elsewhere, the first floor construction is placed directly upon the earth.

The building is of fireproof or fire-resistant construction. Its materials and equipment are standard items, readily available locally. Maintenance was recognized as a factor which can quickly dissipate savings made through false economy, and materials and appliances were selected with durability and permanence in mind.

Youngsters Got The Pheasants

Children in three St. Paul-Minneapolis hospitals on Thursday January 25 came to the conclusion that the cancellation of conventions in St. Paul may have its good points.

Patients in the Gillette hospital for children in Sr. Paul and the Shriners and Kenny hospitals in Minneapolis got a pheasant dinner due to the distribution of 150 birds which originally were intended to grace the table at the annual convention dinner of the Northwest Newspaper Mechanical conference.

Due to a recent ODT ruling, the convention, scheduled for St. Paul February 17 to 19, was cancelled, A. E. Rosene, president, announced.

The pheasants were obtained during the Fall hunting season as a special project by a convention committee.

PREFERENCE *should be given Graphic Arts Industries in preparing for postwar reconversion period so as to pave way for reconversion of industry in general — Ink manufacturing executive urges Craftsmen and other trade groups to take action*

ANTHONY J. MATH, executive vice president of Sinclair and Valentine Co., printing ink manufacturers, addressed the Cleveland Club of Printing House Craftsmen in January. Mr. Math reviewed the establishment of the printing ink industry, he discussed the problems brought to the industry as the result of the present war, and he spoke forcefully regarding the desirability of giving the Graphic Arts equipment makers and suppliers preference over other industries ahead of the postwar industrial reconversion period.

The reason for the latter assertion is that supplies of raw materials for making printing equipment and supplies are dangerously low as the result of the engagement of manufacturers almost wholly in the present war effort. There is no likelihood that the stockpile can be replenished before the commencement of the reconversion period. Consequently, there is a lot to be said for the idea that the printing industry itself should be given materials and supplies for reconversion ahead of industry in general. No industry can do business without the services afforded by the Graphic Arts Industries, and printers in general should be permitted to supply printed matter needed to facilitate industry conversion to a peacetime basis.

He urged the Graphic Arts industries to bestir themselves with respect to rational postwar planning. He said that trade organizations, particularly Craftsmen's clubs, can be instrumental in accomplishing this objective, because they are so familiar with the needs of their customers during the reconversion period and because they are so close to the equipment and supplies situation.

He asserted it will be five years before the Graphic Arts equipment makers can catch up; the papermakers particularly will have difficulty in getting back to a favorable position; the same is true of many of the manufacturers of the important supplies used in the printing industry. There is a necessity for substantial help from the proper sources to enable these various segments of the printing industry to accelerate the solving of their reconversion problems.

In opening his address, Mr. Math reviewed briefly the inception and history of the printing ink manufacturing industry. In England, in the eighteenth century, the first factory to specialize in making inks for the printer was established. Previous to that time, the printer made his own inks. The oldest ink manufacturing concern in the United States is Chas. Eneu Johnson & Co., being established in 1804. Late in the 1880s and early 1890s, introduction of the halftone stepped up the volume of the ink makers. In 1900, the annual volume of business in this country was $5,000,000. Prices at that time were high. Red ink cost $5 per pound. Other colors ranged from $2 and up per pound. The increased use of printing ink in 1910 reduced the price per pound. A further impetus was given to the industry in 1910-1912 upon introduction of the rotogravure process. When World War I started, the annual volume was $12,000,000. In 1920, due to color printing and packaging progress, the annual volume was $20,000,000. By 1929, the industry had expanded into a $43,000,000 volume, because of increasing use and development and increasing use of multi-color letterpress, four-color offset, aniline printing and the growth of the magazine publishing industry. During the depression the annual volume dropped back to $29,000,000. In 1941, increased volume and the vogue for printing on cellophane, foil and special papers boosted the annual ink output to $60,000,000.

Mr. Math discussed the situation during the present war with respect to critical materials used in the manufacture of inks. He asserted that because of the ingenuity of the ink makers no one who needed ink has had to go without. Just now there are difficulties with a few items used in the compounding of inks. These he enumerated briefly. The speaker is confident that ink manufacturers can work out all their present problems unless some difficulties should arise.

The speaker quoted from a booklet published by Graphic Arts Unity Group. Among other information quoted was that referring to the equipment manufacturers, as follows:

"The machinery builders of the Graphic Arts have done a remarkable job. Seventeen of them have won Army-Navy E's. The extent of their conversion from peacetime to war materials is greater than for any other class of industrial machinery. Shipping records show an average of 85% identifiable war work. They have produced for war as much in each 4 months as they did in any year in peacetime operations."

General Estimates of Printing Industry Annual Volume[1]

Commercial and Job Printing	$ 600,000,000
Book Publishing and Printing	300,000,000
Newspaper Publishing and Printing	1,000,000,000
Periodicals	600,000,000
Converted Paper Group: Wax, Parchment, Fancy, Glassine, Foils, etc.	1,200,000,000
Container Group: Folding Box, Corrugated, Set-up Boxes, Bags, Fibre Cases, Bottlecaps, etc.	750,000,000
Metal Group: Tins and Collapsible Tubes, etc.	400,000,000
Miscellaneous: Advertising Novelties, Artificial Leather, Oilcloth, Wallpaper, etc.	125,000,000
Lithographic, Gravure, Greeting Cards, etc.	300,000,000
	$5,275,000,000

[1] Graphic Arts Unity Group bulletin. Quoted by A. J. Math in address before Cleveland Craftsmen's Club.

Part of Speakers' Table at January meeting of Cleveland Craftsman's Club, at which A. J. Math, Executive Vice President of Sinclair and Valentine, spoke upon post-war reconversion for the printing industry. Left to right: Harold W. Hill, President United Typothetae of America; Earl M. Boner, retiring president of Cleveland Craftsmen's Club; H. Guy Bradley, First Vice President of International Craftsmen's Association; Walter Frick, Production Manager of Nela Press, Cleveland, who is the Cleveland Club's new President; Al Sutphin, Braden-Sutphin Printing Ink Co., who introduced Mr. Math; A. J. Math.

*Great Lakes Newspaper Mechanical Conference. This is No. 2 of a series of mechanical bulletins being published at the direction of the Board of Directors.

Officers of the Great Lakes Mechanical Conference: President, George Fuller, Stereo Supt., The Cleveland *Press*; First Vice President, Lester Yeager, Production Manager, The Indianapolis (Ind.) *Star*; Secretary-Treasurer, Al P. Oberg, Composing Room Supt., The Flint (Mich.) *Journal*; Directors: Levi P. White, Stereo Foreman, Port Huron (Mich.) *Times-Herald*; Oscar Gneuhs, Mailing Foreman, The Cleveland *News*; Horace Parker, Press-Stereo Foreman, Richmond (Ind.) *Palladium-Item*; Roy English, Photo-engraving Supt., The Detroit *News*; Frank Duncan, Mechanical Supt., The Portsmouth (O.) *Times*; Program Chairman, Deo A. Padgett, Composing Room Supt., The Cleveland *Plain Dealer*.

Example of Efficiently Operated Daily Newspaper Composing Room

BY THE TECHNICAL COMMITTEE*

THE TECHNICAL COMMITTEE has chosen for the subject matter of this bulletin a discussion and description of the workflow in the composing room of the Port Huron (Mich.) *Times-Herald*. This composing room may be considered in the medium-small category so far as newspaper composing rooms are concerned. It was selected for this purpose because, in the opinion of the committee, it is efficiently operated, is well laid out and lends itself admirably to the purposes of this bulletin. The efficient operation is due to the cooperation existing among the editorial, advertising and composing departments. The truth of this latter statement will be evident upon reading the discussion below. Assistance in the preparation of this bulletin has been given freely by Composing Room Foreman Frank E. Marengo. The opinions expressed herein are those of the committee.

Before we proceed further with the discussion, perhaps we should tell you that the Port Huron (Mich.) *Times-Herald* is a six day evening and Sunday morning newspaper. The average number of pages for the week is 100, with the Sunday paper running anywhere from 14 to 24 pages depending upon the quantity of advertising. To be more specific, we can say that the average number of pages daily is 16. Another bit of information which will help the reader understand the operation of this composing room is that only 7 pages are stereotyped after 12 o'clock noon to meet a first edition deadline of 1 o'clock, irrespective of whether there may be 12 or 24 pages.

Two important particulars regarding newspaper composing room operation confront all foremen: (1) The first of these is streamlined workflow through the department to insure fastest production, and (2) Having induced management to establish deadlines for advertising and news copy, it is essential that all parties abide by them.

The rigorous observance of deadlines will go a long way toward supplying the composing room with sufficient work at all times and will assist greatly in filling in the dead spots which invariably occur in every newspaper mechanical department.

The Port Huron *Times-Herald* has been working under such a plan for a number of years. The plan has been successful. While not perfection itself, it can be stated that it has proved satisfactory 90% of the time. We doubt if any plan could be made to function better than that.

To demonstrate the meaning of cooperation, Mr. Marengo states that straight matter overset is held to a minimum. This is due not only to interdepartmental cooperation but also to close supervision of copy and observance of the deadline schedule. A check was made recently and it was determined that there was a scant half column each day for one week, a portion of which was used in next day's paper.

To obtain a general idea about how copy is handled it is first necessary to explain the manner in which the forms are laid out and how the advertising is placed.

Contrary to the usual method used in many composing rooms, no dummy is supplied the managing editor, nor is one made out. The pages are arranged and laid out in the composing room by the foreman. The editorial department is notified as to the amount of news space. In the course of the day, if an oversupply of editorial copy comes to the composing room, the makeup man (who handles all copy) shunts it to one side. This arrangement places much of the responsibility for filling open space with the exception of page 1 in the hands of the makeup man.

Straightmatter Workflow

The editorial composition section of the accompanying floor plan diagram and workflow chart shows the relative positions of the 10 Linotype machines, banks, makeup tables, proof press and other equipment. This section of the composing room occupies an area 32 ft. by 74 ft. Aisles are 5 ft. wide. This width reduces to a minimum the amount of foot work required to reach a given point.

To fully illustrate the straight-matter workflow through the composing room, we will follow the course of news copy from the time of its receipt from the editorial department until the type reaches the makeup tables.

All news copy, including head copy, mats and cuts are brought to the copy bank *2* by a copy carrier; the makeup man separates the copy. He places the head copy on the headletter machine *3A*; copy in estimated takes of 12 in. is spiked on a stabber above the machine dump *5*, where it is readily accessible to all operators. Urgent matter is always placed on top so it will be the first off. Two additional spikes contain time copy and feature news.

Heads and news matter are dumped separately at *5*; proofs are taken on press *6* and are sent to proof room *7*. Each operator corrects his own proofs. After proofing, the galleys are placed on makeup bank *8* where the heads and takes for the stories are assembled. The pages are made up as soon as the type has been set. Corrections are made in the forms by the makeup man.

Cooperation Gets Results

The ability to control the flow of news copy is due primarily to the close cooperation existing between the editorial and composing departments and to the fact that late copy, with the exception of spot news, is held over until the following day.

Specific deadlines are as follows:

Sports	9:30 a.m.
Society	10:30 a.m.
Rural	10:30 a.m.
Local News	12:00 noon
Page One	12:50 p.m.

It should be understood the bulk of copy in the various categories is received long before deadline, and only in widely separated cases are more than a few pieces sent out at that time.

Telegraph copy is ready at 7 a.m., and follows spasmodically throughout the morning. Most runover stories are in the composing room well before noon.

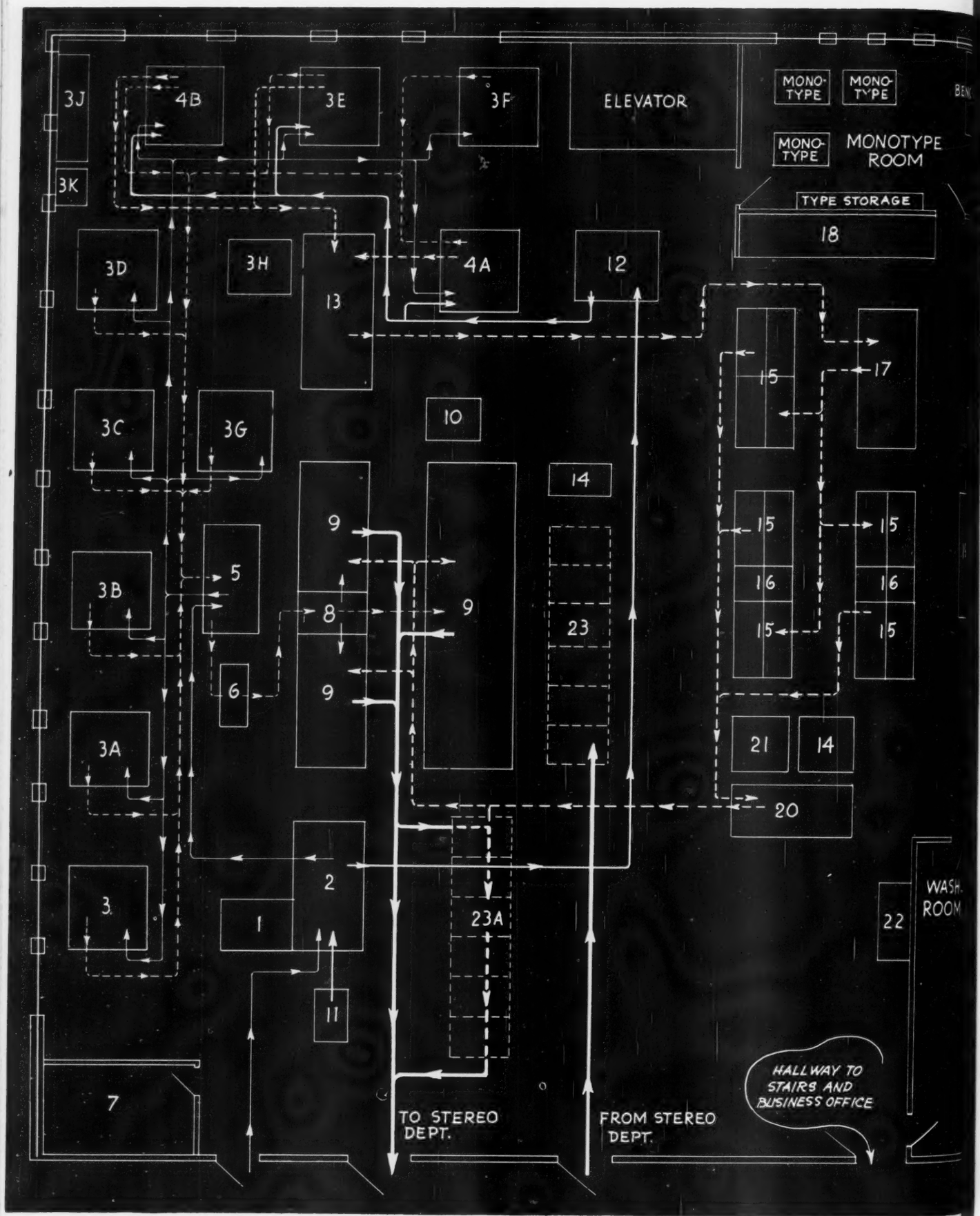
Four pages (1, 2, local and markets) are made up after 12 noon, and page 1 is sent to the stereotype room at 1 o'clock for the first edition. Two editions follow at 2:15 and 3 o'clock p. m.

Advertising Copy

The deadline for advertising copy is 6 o'clock p.m. the day before publication. An advertising order with copy is sent via chute *11*. From chute *11* it is taken to the advertising markup desk *12*. Bulky cuts and mats are delivered via messenger from the advertising department.

The actual ad alley floor space is 23 ft. by 48 ft.

The workflow for advertising copy is shown in the ad alley section of the accompanying diagram. The markup man *12* uses figures to designate size and face



Equipment layout and workflow diagram, Port Huron (Mich.) ***Times-Herald*** **composing room**

of type. He places copy on the ad machine *3B*. If type faces are to be used in the ad other than are contained in ad machine *3B*, the copy is transferred successively to the machines containing the proper faces. Upon completion of the composition, the ad copy and slugs are placed by the operator on ad dump *13*. The foreman of the ad alley then places copy and slugs on ad copy bank *17*, after which it is assembled by floor men at *15*.

The saw trimmers *14* are placed within 5 ft. of the nearest work bank and the proof press *20* is in close proximity.

The distance from the ad alley markup station *12*, assemblers *15* and the proof press *20* is short. Between the work banks and cases *15* is a rack *16* containing leads and slugs ranging from 27 picas to 62 picas. Underneath the rack are compartments for full length slugs, various rule faces and a container for Monotype base. Beneath each work bank are boxes containing quads and spaces from 18 pt. to 36 pt.

This arrangement makes it possible for a man to assemble an ad with minimum walking effort.

If there are any corrections to be made in a page form after it has been made up on tables *9*, or if a page ad has been assembled in the ad alley and corrections still are to be made, the truck containing the uncorrected form is rolled into the space *23A* opposite the stereotype department entrance. The ad and/or straight-matter corrections are made in the form before the truck continues its straightline journey into the stereotype department.

Final Corrections

Incidentally, while the forms are waiting final ad corrections before being shunted into the stereotype department, small cards are inserted in an ad in which corrections have been made. A card is inserted in the ad after the *office* proof has been corrected. When the *store* proof has been corrected, another card is inserted in the ad. By means of these cards, the foreman is enabled to know at all times which pages are ready to be rolled into the stereotype department.

Forms are made up on tables *9* as well as trucks. The forms are slid from table *9* to trucks. In other words, 12 pages are assembled on the makeup tables *9* and the balance on trucks. Trucks are run into the ad alley for composition of page ads.

Late Improvements

The *Times-Herald* composing room is so constructed that there is solid mesh glass entirely surrounding the room on two sides. On the third side, with the exception of the space occupied by the elevator, the wall is entirely of mesh glass.

The entire room has been repainted recently. The upper section is an off-white and the lower 4 ft. wainscot section is slate gray. The proof room has been enlarged. New reading banks have been installed with overhead fluorescent lights. Cabinets have been installed for storing various types of copy and proofs.

Composing Room Foreman Frank E. Marengo tells the Technical Committee that he will be glad to answer questions respecting operation of his department if any members of the Great Lakes Newspaper Mechanical Conference care to contact him.

Key to Equipment Layout and Workflow Diagram at Port Huron (Mich.) *Times-Herald*

1—Foreman's desk
2—Copy station. (All news copy, mats and heads, also classified advertising copy received here)
3—6 pt. and straight matter Linotype
3A—Headletter and straightmatter
3B—5½ pt., 18 pt. and straight matter
3C—5½ pt., 10 pt. and straight matter
3D—6 pt. and straight matter
3E—Straight matter
3F—8 pt. and 10 pt. Metro and straight matter
3G—Straight matter and 10 pt. Gothic
3H—Spaceband cleaning table and parts storage
3J—Machinist's bench and parts storage
3K—Matrix storage
4A—Straight matter and ad machine
4B—Emergency ad machine and straight matter
5—Machine dump
6—Proof press
7—Proofroom
8—Makeup assembly dump
9—Makeup tables. (Accommodate 12 pages) with working material above and below
10—Makeup saw
11—Advertising copy chute
12—Ad markup desk
13—Ad machine dump
14—Saw trimmers
15—Type cases and work top
16—Leads, slugs and rule
17—Ad copy bank (cases below)
18—Cut storage and type storage
19—Lead, slug and rule storage
20—Ad proof press
21—Headletter cases
22—Cut storage
23—Truck storage
23A—Forms waiting correction

Develops Gadi Print Process for Quantity Production of Army Map Blue Prints

TO handle a new volume of business, Gadi Division of the Graphic Arts Corporation of Ohio was formed some time ago. Ernest Jones, well known to many Graphic Arts executives, is president, and the moving spirit in both organizations. The Division is engaged in making large quantities of a substitute for map blue prints. These are known as Gadi prints. Fast service is required on these reproductions which are sent overseas for use by mobile reproduction outfits and base plants to furnish maps for use in the various theatres. In addition, blue prints for aircraft, engines, and other war machines are made by the Gadi process.

Gadi prints are produced by a process which makes use of the principles of offset-lith printing. Specially prepared paper was developed. The paper has no rag content, is of the same weight or slightly lighter than blue print paper. It lends itself to machine folding and trimming. The process reduces to about 10% the personnel necessary to handle the same quantity of blueprints and requires only half the shipping space.

Patents have been applied for on the paper and the process for reproducing from the brownline vandyke prints furnished as copy by the government.

Reproduction plates are different than those ordinarily used in the offset printing process, and require no metal or photographic film. They can be made in minutes instead of hours.

The original sheets upon which the Gadi blue prints are printed range in size from 38 in. by 48 in. to 44 in. by 64 in. After printing, the sheets are trimmed and folded by machine.

The Gadi Division is housed in a special building. At the present time more than 350 persons are working in the plant, 80% of them being women. Running at capacity, the plant can be made to produce 140,000,000 sq. ft. of Gadi prints per month. It is reported that inquiries from large industries using blueprints in quantity in regular peacetime production indicate a live postwar field.

Intertype Gets Another Star

A third award of Army-Navy E's has been received by Intertype Corporation which has now added a second star to its flag. In conferring the honor, Robert P. Patterson, Under Secretary of War, wrote: "In maintaining the fine record which first brought you distinction, you have set an inspiring example for your fellow Americans on the production front."

Metaplast Bulletin

Stereotex Machinery Company has published a four page 6 in. by 9 in. bulletin descriptive of the Metaplast Process for chemically depositing a fine silver coating on an electrotype plastic mold surface to render it conductive for the electrolytic deposition of copper, nickel, iron or other metal. The bulletin may be obtained by addressing the Stereotex Machinery Company direct or in care of *Printing Equipment Engineer*.

How Mental and Mechanical Troubles Were Overcome in Several Instances

By KENNETH W. CHAPIN*

**First Vice President, Pittsburgh Club of Printing House Craftsmen.*

A PITTSBURGH bi - lingual church not long ago wanted to publish a year book. The German-speaking faction declared that its half of the 32 page book should come first; the English-speaking group was just as insistent that English should come first. The printer (a member of the church) was told the controversy was up to him to settle. (Any printer who has ever encountered such a situation knows what he was up against.) He did it very neatly—by putting them *both* first in this way: He laid out the first half of the book, pages 1 to 16, in German. He then closed the book, turned it upside down, giving him a new "front" and proceeded with another set of pages 1 to 16, in English. Of course, the two pages 16 ended up facing each other in the middle of the book, one upside down to the other, but no matter how a member of either faction read it, his was still first.

He heard not one complaint, but did get a number of amused compliments from some members who were as non-partisan as himself.

Knowing the ingenuity of my fellow-printers, it has occurred to me that the foregoing might be an old idea. At any rate I never heard of it until just recently. However, it might be so old that it would be newsworthy to some who, like myself, have not yet acquired too many whiskers in the printing business.

The Topeka *Craftsman* recently quoted *Printing Equipment Engineer's* item about the line-casting machinist who "fixed" unjustified complaints about doubles by rattling the covers and squirting benzine on the floor. There are many dodges employed to alibi a short "string". On the other hand, there are machinists and service men who slack on fixing real troubles.

In a large composing room not long ago I noticed the motor on one Linotype kept stopping every few minutes. The operator would put on the red light. The electrician would come over and wiggle the plug on the motor lead until it started again, then walk away, only to have the motor stop again in a minute or two. Finally the operator, in desperation, appealed to the machinist as he happened to walk by. The machinist went behind the machine and keeping a sharp eye for the electrician, pulled out the plug, spread the prongs with his fingers and replaced it, and everything was jake.

An example of this attitude occurred in a local plant some time ago. The cutter operator complained that the back gauge was no longer parallel with the knife; also, that the clutch would not pull the knife through 3 in. of antique stock, even though the blade was newly sharpened; also, the safety was not working.

The boss called the agency, and after a long time the service man came out, arriving at 11:50 a.m. He was shown all three troubles and went to work. At noon everybody but the boss went out to lunch. About 12:45 the service man came into the office with his slip to be signed, and the boss, being busy with a customer, merely asked him if he had fixed all three things. Upon receiving the man's "Yes" in reply to his query, he signed the slip and permitted him to leave.

When the operator came back from lunch he found that the safety had not been fixed; neither had the gauge been squared; and the clutch was now so tight that the blade overthrew nearly half the down-stroke. After squabbling for several days with the agency with no result, one of the fellows finally brought in a big steel square and set the gauge in about 20 min., including a test by the operator. The operator found the safety clevis pin on the floor, replacing it himself. And the boss got an auto mechanic to reset the clutch. Maybe they should have depended on themselves in the first place.

Here's a seemingly minor case of trouble that might keep somebody else guessing for a while, as it did here recently. The Intertype metal pot would not retreat to its cam after a cast. The plunger was not sticking; neither was the pot roller bracket fouling the cams. I happened to bump the slug lever (which pushes the slugs to the left on the machine galley as they are ejected). It moved to the right and the pot settled back where it belonged.

On the newer Intertypes, the slug lever is actuated by a bracket on the right pot leg engaging a small roller on the lever, pressure to the left being maintained by a long spring hooked to the lever 4 in. above the roller. Investigation showed that the oil hole in the roller was clogged at the bottom and the bearing was dry. This friction, plus the pull of the spring, plus the lift of the counterbalance spring under the pot, was enough to prevent the pot returning to normal after the cast. Just another example of the importance of making certain that proper lubrication is maintained.

Experimental Runs Improve Appearance and Readability of Newspaper

INTERESTING experiments looking wholly to the postwar period have been made recently at the Cleveland *Plain Dealer*. The experiments incidentally, may seem to be of an elementary nature and some executives will feel that the result should have been obvious even before the experiments took place.

The experiments were undertaken on regular runs by Production Manager Leon A. Link with two thoughts in mind. The first of these is that newspaper printing can be improved simply by using better newsprint, and the second is that it can be further improved by using newspaper-magazine ink in addition to the better newsprint.

If one is familiar with the mental processes of newspaper management in general over a period of years, the *Plain Dealer* experiments take on greater importance.

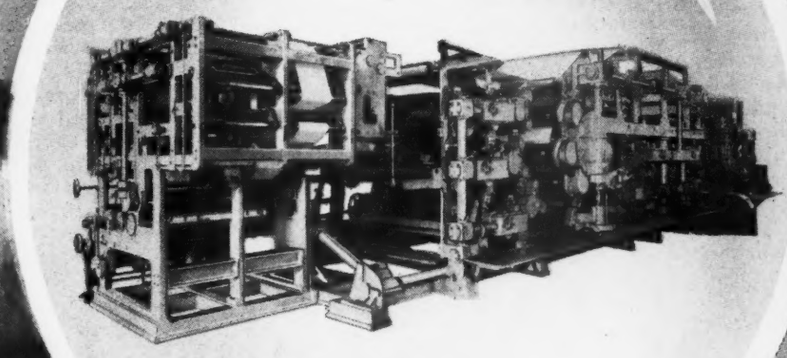
For many years, the existing method of newspaper printing has been taken for granted. However, the publisher has strained the potentialities of the process progressively to the limit in attempts to reduce newsprint consumption. Principally, he has done this by demanding ever increasing shrinkage in dry mats, or he has modified equipment to enable utilization of narrower width newsprint. Newsprint, of course, costs real money. Hence the urge to reduce its consumption so long as the appearance of the newspaper was not affected too much from the reader viewpoint, or so long as no one took any notice of the progressive attempts at securing greater revenue for less product.

Now the progressive straining after reduction of the newspaper page size via the shrinkage route to promote newsprint economy seems to have reached the end of the trail. There are several potent reasons for the gradually awakening comprehension of the fact that the newspaper's situation isn't just what it ought to be.

Up until recently, newspaper advertising has been sold solely on the strength of the paper's volume of circulation. In many instances, the circulation covered the field like a blanket. Now, however, this predominant selling argument has lost its power. Something else is needed. Let's discuss the reason. At the risk of being trite, we wish again to call your attention to the radio. It's all very well for you to say that radio's news and advertising broadcasts are evanescent and that people forget as soon as they hear. The facts of the case are that these radio services *do satisfy many people irrespective of their alleged evanescence*—to the detriment of the newspaper.

Another powerful element which has been nibbling away at the national advertising income is the weekly news and picture magazine. Irrespective of the delay of a few days, the news magazines do satisfy a great many people who seem to like the news dished up to them in predigested form several days later than they could have read it in the newspaper hot off the wires.

What, then, can the newspaper do to make readers want its product? We feel



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Let Cottrell anticipate with you. Cottrells' ability to plan for the printing trade's future requirements is backed by ninety years' past experience in designing and producing two- to five-color presses for fine magazine, booklet, catalog and direct mail printing. Today is not too soon to plan your post-war requirements. Get in touch with Cottrell now.

C. B. COTTRELL & SONS CO.

WESTERLY, RHODE ISLAND

New York: 25 E. 26th Street • Chicago: Daily News Bldg., 400 W. Madison Street • Claybourn Division: 3713 North Humboldt Avenue, Milwaukee, Wis. • Smyth-Horne, Ltd., Chipstead, Surrey, England

that the editorial side of newspaper making is on its toes and at the present time is only inhibited from maintaining greater reader interest because of the limitations of the printing process. So, let's get back to the *Plain Dealer* experiments with better paper and newspaper magazine ink.

Regularly, 32 lb. newsprint is used by the *Plain Dealer*. For the purposes of the experiments mentioned above, a quantity of 34 lb. newsprint was obtained. In printing upon the 34 lb. stock, in December 1944, the only difference was that a flying paster was made from the 32 lb. stock at the end of the run to the fresh roll of 34 lb. stock. The same plates, blankets, ink, roller settings, etc., were utilized as for the 32 lb. newsprint. A sufficient number of copies were printed to pass around to interested people for inspection.

The improvement in printing upon the 34 lb. stock is outstanding. Show-through is noticeably diminished, the black areas are more intense if not extremely solid, there is a great improvement in the appearance of the halftones, and the type seems to print noticeably sharper. Readability is distinctly improved. Referring again to the printing of halftones, there is a noticeable improvement in the printing of the halftone dot—it's sharper and under a glass it appears that one doesn't get the spreading dot that occurs when printing on the 32 lb. paper. Upon inspecting closely a number of papers printed on the 34 lb. stock it appears that its surface is more uniform and more print receptive.

A similar press run was made subsequent to the run discussed above with the 34 lb. paper but using in addition regular newspaper-magazine ink.

In discussing the two experimental runs, Mr. Link stated that a better effect was secured by increasing the quality of the paper using regular news ink than by using both the better paper and newspaper-magazine ink. When asked about increased weight consumption of 34 lb. newsprint, he stated that it amounted to approximately 6%.

Mr. Link made further comment as to the reasons behind the experimental runs. He said: "With respect to the better quality black ink it may mean that the increased varnish content may bring about smut and other troubles. Such an ink might not penetrate the sheet as do present news inks but would lie on top, so to speak. From the management side of the newspaper publishing industry, however, I don't feel that it is going to take a lot of persuasion to get the department store advertiser, for instance, to see the advantages of printing upon better paper. In fact, several Cleveland advertisers were used as 'guinea pigs'. When shown copies of the *Plain Dealer* printed upon the 34 lb. stock, they enthusiastically approved the better appearance of their advertisements. This is research in its crudest form. We feel that this is one of the projects which could be undertaken by the new ANPA Department of Research."

Metallic Ink printing technique — Inks have to be adapted to wide variety of paper stocks — Must form a thin film on paper, bonding the tiny flakes to surface

By FURMAN C. ARTHUR*

**Metals Disintegrating Co., Inc., Elizabeth, N. J. Abstract of address delivered before the Metal Powder Association, Cleveland, October 1944.*

THE mixing of metallic pigments, whether they be in paste or powder form, is most important from the standpoint of obtaining high quality printing. Printers, in general, have long debated the question of the merits of a ready-mixed metallic ink as compared with one mixed on the job at the time of application. Most of the metallic printing ink manufacturers have made developments not only in the selection of raw materials going into their inks but also in the formulation of metallic inks. There are today a large number of satisfactory ready-mixed metallic inks commercially available. In any case, whether the printer uses an ink mixed on the job or one mixed by an ink manufacturer, there are a few fundamental rules that should be carefully observed in order to obtain the most satisfactory formulation and application.

1. Only grades of pigment, whether they be in paste or powder form, recommended for the job should be used. The grades of pigment most extensively used in metallic printing inks are referred to in the trade as the lining grades. That is, these pigments are extremely fine, all passing a 325 mesh sieve. However, the average particle size of these pigments is appreciably under the dimensions of a 325 mesh opening.

2. Definite formulas should be adopted for the specific printing job with particular regard to the paper stock employed. This can only be done by accurately weighing each ingredient going into the ink. Scales are rare equipment in most pressrooms. Without question, the greatest difficulty encountered in metallic printing is that of regulating the drying qualities of the ink. It is believed that this is due largely to the too often used "guess method" in measuring the proportions of dryer and ink.

3. No exact practical limits of proportion of pigment to the ink vehicle can be set down since these factors vary with type and grade of pigment, consistency of the varnish base, type of press and texture of paper. For instance, the thinner the varnish, the more pigment it will carry. Gold bronze or copper base alloy pigments, for example, are used in a substantially higher proportion than in the case of the silver or aluminum pigments.

Too little pigment in the ink results in poor coverage of the impression. Too much pigment will produce poor flowing qualities. A poor flowing ink tends to cake on the press, resulting in offsetting and necessitating frequent washups. The printed films will likely have a mottled appearance and contain loose flakes of pigment which will rub off after drying.

4. In general, all metallic pigments produce the brightest inks due to their initially high leafing power and consequently produce the brightest ink films when they are used immediately after mixing. Uniform dispersion of the tiny flakes in the varnish base is essential. This should be done with the minimum amount of agitation since this destroys leafing power and reduces brilliance. Metallic pigments should never be incorporated into the ink vehicle in the usual method of mixing non-metallic pigments.

Mixing the Inks

In most print shops, the printer usually mixes only small batches of metallic inks. This is usually done by means of the spatula. The large ink maker may use a mechanical mixer of the pony type where he is mixing large volume. In either case, the recommended technique is to first weigh separately the required amounts of pigment and varnish. Add sufficient varnish to the pigment to produce a homogeneous fluid paste. Add balance of varnish in small portions with continued mixing until pigment is thoroughly incorporated in the varnish. Adding the powder to the varnish will cause the formation of small agglomerates of pigment not wetted by the varnish. If thinner is to be used to balance the ink, it may be well to disperse the pigment in the thinner before adding the varnish. If thinner is used, it should be selected on the basis of compatibility with ingredients in the pigment and varnish.

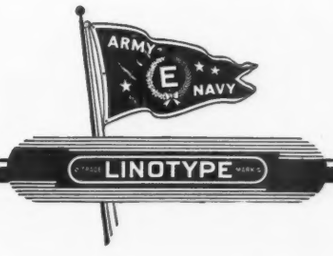
The proper incorporation of dryer after the pigment has been mixed in the ink is difficult of accomplishment and presents many press problems. Therefore, if additional dryer is required, it should be added to the varnish before the pigment is incorporated.

Press Operating Differences

A brief discussion of some of the press operating differences between employing metallic and non-metallic inks may be in order. With metallic inks, it is preferable to lay on a heavy film instead of squeezing the ink into the paper with pressure as is the case with non-metallic inks. Sharp impressions are best obtained by

wisdom *is not* weakness

—the rural philosopher's observation that "each generation grows wiser and weaker" to the contrary, notwithstanding



IN mechanics, wisdom is understanding —it is strength. Finer metals and materials, greater precisions, improved manufacturing methods, are the results of researching, experimenting, understanding. The synthesis is progress.

The Linotype of today combines the experience of some sixty years of a highly specialized organization and the technical assets of all the world in every field. As better methods and materials are devised, Linotype uses them and Linotype users profit accordingly.

And the Linotype Production Engineers in the field today bring to the industry the wisdom and understanding of their technical training and years of practical experience. To use them is wisdom.

** Buying Bonds is Wisdom—Indecision is Weakness **

Linotype Caslon Old Face and Caslon No. 3 Italic

employing a light roll pressure. The transfer rolls should show maximum liveliness and minimum tackiness and be free of surface defects. Metallic inks should be transferred from fountain to printing plate with the minimum number of rolls. Excess working on the rolls and transfer plates destroys leafing power of the pigment and tends to produce a mottled and dull effect to the printed film.

When it is desirable to print two impressions of metallic inks, it is advisable that the first print be produced with a firm impression and a slightly under normal flow of ink; the second print, however, should be made with a light impression and a normal flow of ink.

If over prints are desired, the printer should avoid inks containing appreciable amounts of wax or similar substances since these materials come to the surface of the film during drying, thus making it difficult to overprint other colors.

Inks Must Be Adapted to Paper

The material to be printed is obviously an important factor in selecting any type printing ink. This is all important in metallic printing. This suggests close working relationship between ink maker, printer and paper manufacturer. Metallic inks have to be adapted to a wide variety of paper stocks—differing in fiber structure, porosity, composition, sizing, coating and smoothness. Porosity is of extreme importance from the standpoint of drying of the ink film.

One of the leading paper companies which has done considerable work on this problem classifies its own kinds of coated paper and their relation to metallic vehicles as follows:

Glossy-coated Letterpress Papers
Lazy flowing vehicle

Offset Enamel
Easy flowing vehicle

Litho-label Papers Coated One Side
Fast flowing vehicle

One or Two Impressions?

Glossy-coated papers for letterpress operation can be printed with only one impression to produce satisfactory results with either gold bronze or aluminum pigments.

For best results on dull coated papers, two impressions are recommended for either gold or silver pigment inks. This also applies to the offset enamel papers.

For uncoated, such as calandered English finish and antique papers, good coverage, smoothness and brilliance can be obtained with two impressions of these metallic inks.

With the early return of metallic pigments for printing inks, it is believed that an era is soon approaching when the ink maker, the artist and the printer will work in close cooperation with the advertising staffs of industry in presenting to the critical eyes of the public the beautiful color effects of metallic inks in advertising a wide variety of consumer goods.

Bonding Ink to Paper

Glossy coated papers are generally most suited for metallic printing. It is no problem in general to obtain a high degree of brilliance and smoothness in a metallic ink film on this stock. However, even some of the high glossy paper stocks contain coatings which show varying degrees of receptivity to the varnish or vehicle of the ink. This factor is one of concern to the printer since he must select an ink which when applied will form a thin film on the surface of the paper, binding the tiny flakes and bonding them to the paper; the surplus vehicle not required in the binding job must get out of the way by penetrating into the paper. This latter operation must be done fast enough to permit normal drying on the one hand and slowly enough to permit the formation of a binding film around each pigment particle on the other hand.

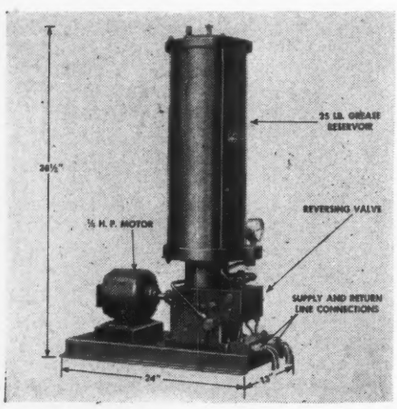
By employing this general rule, results can be controlled in printing metallic inks by altering the flowing speed of the vehicle to suit the particular surface of the coated paper being printed. It has been proved in the pressroom to be possible and practical for the pressman and ink maker.

Producing metallic printing ink vehicles having varying flowing rates and testing them in combination with the particular metallic pigment to be used on paper points to a scientific approach of standardization in metallic ink printing that largely removes the too often used method of trial and error.

Equipment and Supplies . . .

Automatic Central Pumping Unit for Lubricating System

RECENTLY announced by The Farval Corporation is the Automatic Central Pumping Unit DC-25. This is a small size, double plunger, slide valve type of pumping unit which provides a positive high pressure pump for the handling of all types of lubricants without the use of springs, check valves or stuffing boxes. The complete system will handle either oil or grease and requires no attention except the renewal of the lubricant supply in the reservoir.



Similar to the larger Farval heavy duty units, the DC-25 central pumping unit delivers lubricant under pressure to all bearings in the system through two main supply lines serving a Farval Dauline measuring valve at each bearing. Frequency of operation is controlled by an electric time clock. A signal device is available to indicate any interruption to the normal operation of the system. For individual machine lubrication, this central pumping unit can also be furnished with rotary drive and with hydraulic timing. With this arrangement, the unit will start and stop with the equipment served. Operation of the Farval double plunger pump is explained and illustrated diagrammatically in Farval Bulletin No. 40 available on request.

Water-Resistant Adhesives

FOUR newly improved water-resistant adhesives, designed for overseas packaging of military parts have been announced by Paisley Products, Inc. Each adhesive has characteristics that make it suitable for a particular operation in the manufacture and final sealing of waterproof bags, case liners, and the gluing of V-board export box flaps. They were developed to meet the water immersion tests of Army and Navy Packaging Specifications.

These adhesives are of the emulsion type, the adhesive and resin solids in the form of tiny particles or droplets being suspended in a water solution. In addition to being non-inflammable and free from objectionable odors, manufacturers claim they permit fast sealing as they can be water diluted to spread freely and evenly without brush drag. When used on asphalt laminated and impregnated papers and V-board, the fast breaking emulsion quickly penetrates the paper fibres and releases the resin film as the water insoluble bonding agent. The final adhesive film, when completely dry, is resistant to extremes of heat, cold, humidity, and complete water immersion with a safe margin over the usual specification tests.

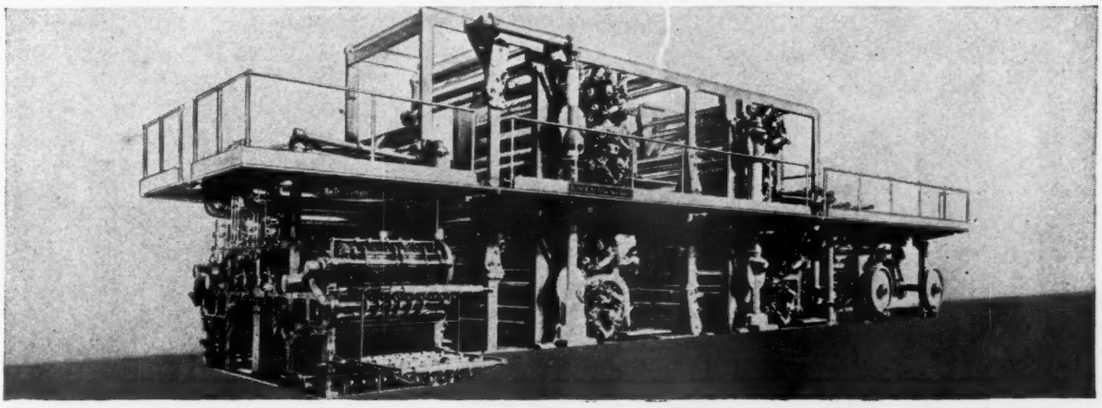
An Adhesive Problem Data Sheet and Technical Service Bulletins are available to war contractors upon request.

Universal Charts for Precision Printing

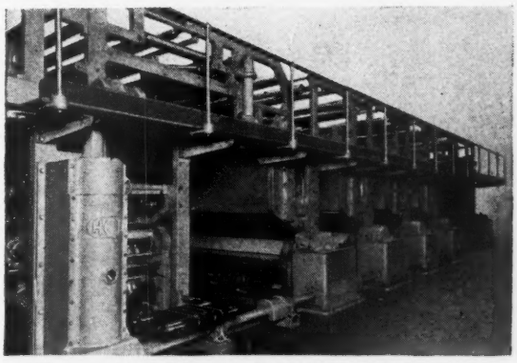
ENGINEERS Specialities Division of Universal Engraving & Colorplate Company, Inc., has announced it will furnish ruled charts on ⅛ in. or ¼ in. plate glass, upon which can be drawn to specification diagrams for the inspec-

COVERING THE FIELD WITH HOE ADVANCED DESIGN PRESSES

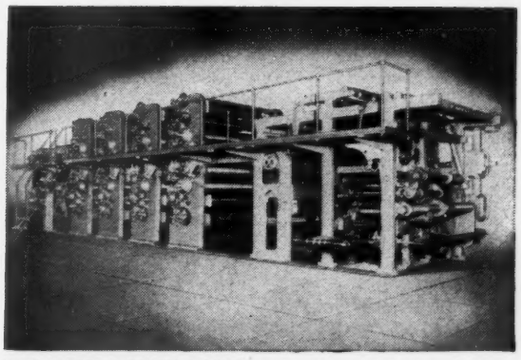
The Hoe equipment shown here covers the three basic printing processes — letterpress, offset and rotogravure. These presses are supplemented by Hoe's complete line of modern, precision-built equipment covering the entire printing and plate-making field.



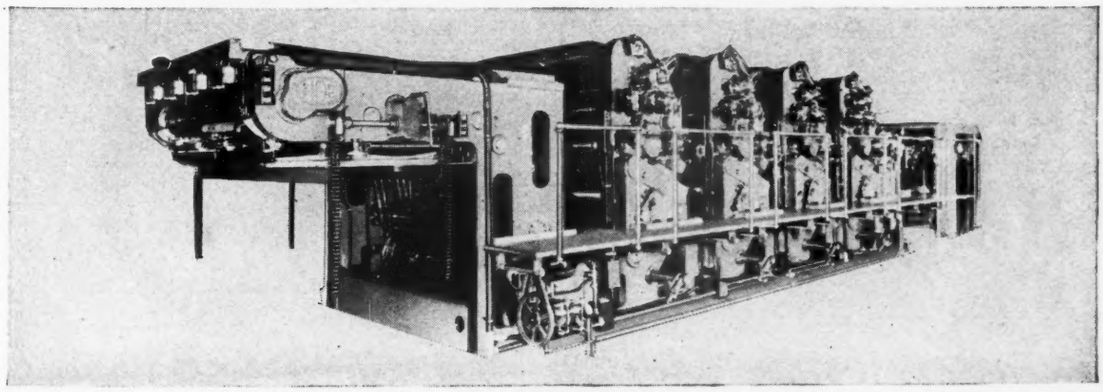
SUPER-PRODUCTION MAGAZINE PRESS —Produces 40,000 32-page signatures per hour at a web speed of over 1,000 feet per minute. Modern design features include: Heavy steel frames — solid steel impression and plate cylinders mounted in self-aligning roller bearings — automatic force feed lubrication — anti-friction bearings throughout.



SUPER-PRODUCTION ROTOGRAVURE PRESS — Produces multi-color work at 15,000 to 20,000 cylinder revolutions per hour, with higher speeds on monotone for the rotogravure section of most newspapers, both one-color and multi-color.



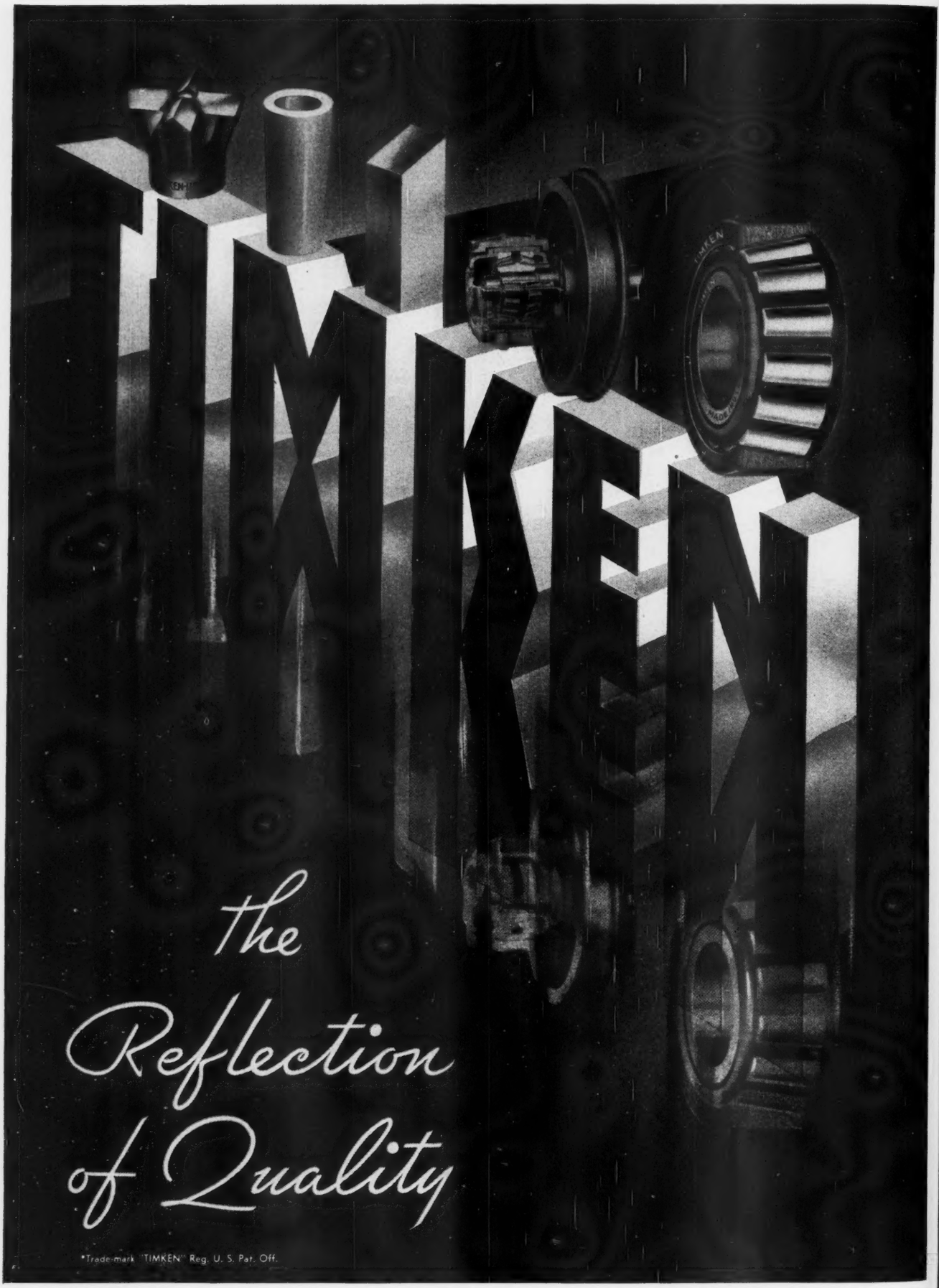
WEB FEED OFFSET PRESS —This 4-unit Web Perfecting Offset Press operates smoothly at 15,000 revolutions per hour, and produces a 16-page standard-size newspaper with any combination of four colors on every page.



SHEET FEED OFFSET PRESS —The world's largest sheet feed paper press; lithographs 4 colors on one side of a 50" x 72" sheet in a single operation for mammoth production at high speeds. Has automatic register control — non-stop sheet registration — pre-registered plates — unequalled ink and water distribution.

Back the Invasion *Buy more War Bonds*

R. HOE & CO., INC., 910 EAST 138th STREET, NEW YORK 54, N.Y.



TIMKEN Tapered Roller Bearings | **TIMKEN** Alloy Steels | **TIMKEN** Seamless Steel Tubing | **TIMKEN** Railway Roller Bearings | **TIMKEN** Rock Bits

tion of very exacting work. The charts are especially adapted to the scoring of boxes and cartons where precision is essential, ruling, and the positioning of certain printed details and parts to be die-cut, and for checking recording dials.

The charts are ruled on plate glass with an accuracy of 0.002 in. Manufacturer states they retain that accuracy permanently because the glass is virtually unaffected by atmospheric conditions.

The charts are usually made up with metal knobs by means of which they are handled. The diagram is on the underside of the glass and is placed over and in actual contact with the surface of the sheet being inspected, which lies printed or scored surface up, on a layout or similar flat surfaced table. These charts are also made to be used on or in place of the glass of an illuminated layout table, in which case the printed sheet is laid on the chart for inspection.

Engineers Specialties Division states the charts can be made in any reasonable size and may carry any layout desired. An executive of the division states that after a master drawing or scribing has been made, the division can produce as many duplicates as are desired. Thus virtually absolute uniformity is assured, whether the work is performed on separate presses or machines or even in plants which are widely separated.

Further information may be secured from the Division named above, or *Printing Equipment Engineer* will gladly transmit your request.

New Fluorescent Lamp Ratings

BASED on information from service and laboratory life tests, new and longer life ratings for the 6, 8, 15, 20 and 30 W. Westinghouse white and daylight fluorescent lamps have been announced. R. R. Brady, manager of commercial engineering for the Westinghouse Lamp Division, said that statistics on lamp life were particularly important in planning maintenance programs and calculating the cost of light in war plants and stores.

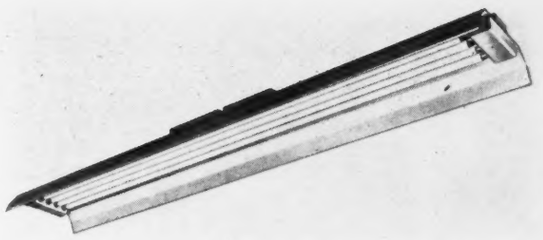
Because of the depreciation in the light output the longer the lamps burn, Mr. Brady said, "for most lighting services the use of fluorescent lamps beyond 6500 hours cannot be economically justified."

The new life ratings:

Lamp	Burning Hours per Start	Rated Average Life[1] (Hours)	Approx. % of Initial Lumens per Watt at 70% of Rated Life
6 watt F.....		1500	75
8 watt F.....		1500	75
15 watt F (T8)..	3	2500	78
	6	4000	72
	12	6000	69
15 watt F (T12).	3	2500	84
	6	4000	76
	12	6000	70
20 watt F.....	3	2500	84
	6	4000	76
	12	6000	70
30 watt F.....	3	2500	78
	6	4000	72
	12	6000	69

[1] Life under specified test conditions. This includes such factors as operation on A.C. circuits at rated voltage, the use of starters and ballasts, or transformers of proper design.

View of General Luminescent Corporation's 93 in. cold cathode low voltage fluorescent lamp and fixture unit.



8ft. Cold Cathode Fluorescent Fixtures

GENERAL Luminescent Corporation announces it has developed a cold cathode low voltage fluorescent 93 in. Colovolt low voltage lamp. The main difference between this new lamp and those commonly in use is in the electrodes —the hot cathodes operating at high temperatures. Manufacturer states that prior to this time cold cathode lamps could only be operated on high voltages, but it is now possible to operate cold cathode lamps on low voltages.

Manufacturer states the new Colovolt lamps have a life expectancy of 10,000 hrs. and are instantaneous in starting.

The fixtures now announced for housing the lamps are finished in baked enamel and may be had in 2 lamp and 4 lamp models for mounting singly or in continuous lines.

If you are interested, write to General Luminescent Corporation, or, *Printing Equipment Engineer* will be glad to pass along your request.

Properties of Santocel for Printing Inks

MONSANTO Chemical Company states that Santocel, technically known as *silica aerogel*, is a very porous form of silica. When it is incorporated with printing inks to the extent of 3% to 5%, it produces a marked increase in viscosity and a butter-like consistency. This makes possible the printing of thicker films of ink without pulling up the nap of the paper. The ink remains on the surface of porous paper and produces a gloss which can otherwise be attained only with overprint varnishes. The effect is similar, but superior to, that produced by light weight aluminum hydrate or magnesium carbonate.

Santocel is best dispersed for use in printing inks by grinding on a roller mill. Under these conditions the silica is colloidally dispersed and has practically no hiding power. Santocel may be ground in the pigment mix or ground separately. It is usually ground with the color pigment to assure a homogenous distribution. Santocel tends to harden the ink and set the surface quickly.

The following comment is made by Monsanto Chemical Company with respect to Santocel: (1) Santocel produces an increase in viscosity which is accompanied by a reduction in length and tack. (2) Varnishes thickened with Santocel maintain their viscosity better at elevated temperatures. (3) Santocel prevents the absorption of ink into porous surfaces and aids gloss. (4) The almost complete transparency of Santocel in oils (very nearly the same index of refraction) is such that no changes in color or tone of the ink or chalkiness is introduced. (5) Santocel will control flow in thin inks.

ATF Precision Remote Controls

THE Remote Control Division of American Type Founders has announced electro-mechanical devices by means of which an operator is able to control a motor-driven mechanism at a remote location, so that the controlled unit will assume a desired position with extreme accuracy. To explain direct application of these devices with respect to printing machinery, it might be said that these instruments, being purely positioning devices, can be used to control press running speeds only, if they serve as the initiating device to set a speed controller in different positions. This is a feasible application for both the Continuously-Variable Control, as well as the Multi-Turn Selector.

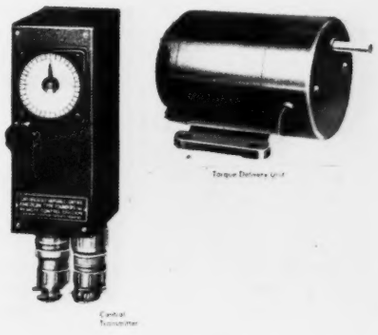


Fig. 1.—Here are shown the control transmitter (left) and the torque-delivery unit of ATF's Continuously-Variable Control. This is a non-synchronous follow-up control with a repeat-back indicator, for positioning from a remote point the controlled shaft governing considerable torque or load with exceptionally high accuracy, according to the manufacturer. By turning a knob on the control transmitter, the operator is able to control the position in rotation of the output shaft of the remotely-located torque-delivery unit.

A Continuously-Variable Control can be used to facilitate registration correction, particularly in large presses where it might be desirable to have all the controls at one end of the press easily accessible for the head pressman. Another

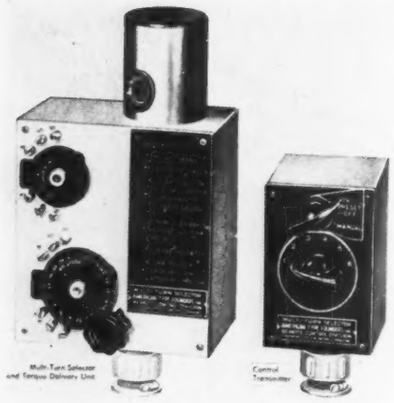


Fig. 2.—The ATF Multi-Turn Selector is a motor-driven mechanism whereby its connected load may be placed in any one of several preselected positions, over one or a number of revolutions. The device (at right) is fitted with adjustments for six positions within 25 turns of the output shaft. Other devices may be supplied for a larger number of pre-selected positions, or to operate the output shaft through a greater number of revolutions. The selector (left) is operated from a remote point by push-buttons or by a multi-station switch.

application of the Continuously-Variable Control is to control the lens position and the copyboard position of a large reproduction camera from the darkroom side. It could be used also for diaphragm adjustment.

Remote Control Division states there are four basic types of ATF Precision Remote Controls: (a) A Continuously Variable Control; this is a non-synchronous follow-up control provided with a repeat back indicator for positioning the shaft of a reversible motor to any point of any revolution. (2) A Multi-Turn Selector; a motor-driven device whereby its connected load may be placed in any one of several (usually six) adjustable positions over one or a number of revolutions. (3) A Dual Control; this incorporates the features of both the Continuously Variable Control and the Multi-Turn Selector; by this combination, the operator may position the load to any one of the pre-set positions, or by turning a knob, to any point over the full range. (4) An Integrating Selector which provides automatic setting of the load to a large number of positions by means of a comparatively small number of push buttons.

Manufacturer states normal accuracy of positioning can be as close as one, one-hundredth (1/100) deg. of the output shaft. These instruments have been developed under the Yardeny System.

Eighth IPI Essay Contest

First prize, a $500 war bond, in the eighth annual essay contest sponsored by International Printing Ink, in cooperation with the National Graphic Arts Education Association, has been awarded to Charles Crum, a student at Sweetwater Union High School, National City, Calif.

Other awards consisting of war bonds in various amounts and pins were made to a number of other contestants in various parts of the country. "In Recognition" certificates were given to all cooperating schools and silver pins to all teachers whose students were entered in the national contest.

The subject of the contest was *Printing and a Free Press*. The jury which picked the prize-winning essays consisted of Harry L. Gage, vice president of Mergenthaler Linotype Co., chairman; Frederick B. Hasler, president of the Pan American Society and president of the New York Chamber of Commerce; A. G. McCormick, Jr., president of the Graphic Arts Victory Committee; Franklin Johnston, publisher of *American Exporter* and Linwood I. Noyes, president of American Newspaper Publishers Association.

Hoe's Financial Report

R. Hoe & Co., Inc., had a net profit of $502,878 for the fiscal year ended September 30th, 1944, after all charges, including Federal Income and excess profits taxes of $2,375,000 and a reserve for renegotiation, according to Harry M. Tillinghast, president. This compared with a net profit of $664,353 in the previous fiscal year, the decline of 24.3% being attributable to lower sales and certain non-recurring charge-offs.

For the 1944 fiscal year, net sales amounted to $18,064,329 in the preceding year. As of September 30, last, current assets totaled $5,463,313 against current liabilities of $2,723,393, leaving a net working capital of $2,739,920.

Regarding the question of a dividend payment on the Class "A" stock, Mr. Tillinghast, in his remarks to stockholders, states: "At the end of the war substantial amounts of cash will be required to purchase tools and equipment. This factor, together with the sinking fund requirements on the mortgage bonds and prior preferred stock, make it advisable to defer payment at this time of any dividend on the Class 'A' stock."

Mr. Tillinghast also announced that Harold G. Cutright, who was elected vice president and general manager of the press division of the company last October, had been elected a director of R. Hoe & Co., Inc., succeeding Charles I. Morton, resigned.

Demand Heavy for Printed Copies

The United States Patent Office reports that about 5 million printed copies of patents were purchased by American Industry during the fiscal year ending June 30, 1944. The demand is said to be so heavy in recent months that the agency is running two months in filling orders. From this it is evident that industry is in search of ideas for post-war civilian goods. A total of 2,362,963 inventions have been patented since 1790.—*UTA Bulletin.*

New Offices in Boston

The Linotype Company announces that the offices of Arthur H. Cooke, New England manager, were moved January 15 from 10 State St., Boston, to Suite 844 in the Park Square Building, Boston 16—convenient to hotels, subway and Back Bay and Trinity stations. The new telephone numbers are Liberty 3406 and 3407.

Albert B. Brazis, who for the last eighteen years has been head machinist with the Boston *Post*, has joined the Linotype company as a maintenance engineer in New England, and John L. O'Neill, who has been with Linotype since September, 1936, is now serving as a production engineer in Maine, New Hampshire and parts of Vermont and Massachusetts.

Northwest Conference Postponed

Members of the board of directors at a special meeting in St. Paul, Minn., the evening of January 25 decided upon indefinite postponement of the Third Annual Northwest Newspaper Mechanical Conference which had been scheduled to be held in St. Paul on February 17-18-19. While it was necessary that the conference be not held on the scheduled dates because of the recent ODT ban on conventions involving critical transportation, the board and conference officers felt that a cancellation was not in order since a subsequent relaxation of transportation stringencies might make it possible to hold the conference later

Harold R. Thompson, president of the Omaha Club of Printing House Craftsmen, presents Wm. J. Scott a copper plaque in recognition of his 78th birthday. Acknowledgement of 11 years service as secretary-treasurer of the Omaha Club took place at the club's annual Christmas party, December 16. To Mrs. Scott, Mr. Thompson presented a corsage. She is a member of the Omaha Club's Ladies' Auxiliary.

When

Hammond OF KALAMAZOO

Hammond EASYKASTERS

With the necessity of reducing costs after the war, your program should include an EasyKaster. Without a modern casting box, there is much wasted time that is rarely seen except by the men who are having to put up with slow-poke and inaccurate casting. The EasyKaster is the fastest and most accurate casting box ever built. It is the choice of most — make it your choice for better and lower-cost casting after the war.

5 column x 18" with 300 lb. melting pot.
6 column x 24" with 300 lb. melting pot.
8 column — with 800 lb. melting pot.
8 column — without melting pot.

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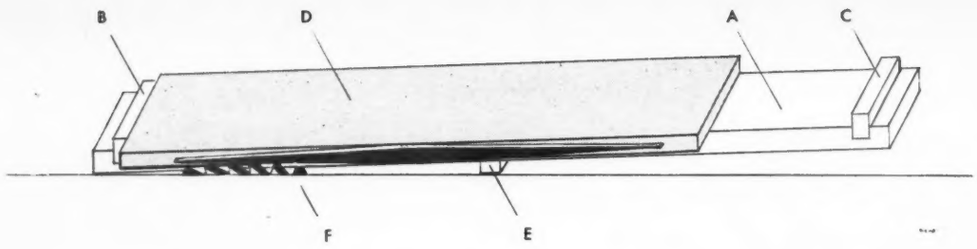

Tapered Dash Jig

By ROY ROTHSTEIN*

**Type and Art, Cleveland, Ohio.*

LONG, tapered dashes may be made in any quantity on your composing room saw by means of the jig shown in the accompanying illustration. The dashes may be out from 6 pt. full-face line - composing or strip - caster rule. While the specifications given here may seem a little indefinite, yet we are sure that by the exercise of a little ingenuity anyone can cut dashes of any length from any point size machine-cast strip material.

The jig proper *A* can be made from wood rule or reglet. The main requirement is that it be not more than ⅜ in. wide across the body. This is to allow room for cutting into the side of the type-high strip material without damaging the jig.

The next step in making the jig is to cut a dado near each end of the jig *A* to permit gluing or tacking in wooden stops *B* and *C*. Next cut a dado in the center of the jig for the rocker *E*. The rocker is an em quad, the dado being cut just wide enough to permit removal for adjustment.

In operation, the table is raised so that the saw blade *F* projects slightly above it. Position the jig against the work gauge and move the adjustable side guide with the jig *A* and the base of the slug *D* against the guide finger, so that the saw teeth will cut 3 or 4 pts. into the face side of the slug.

To cut the printing face of the dash, hold the end of the rule against the forward stop *B* and make cut. Pull the sliding work guide back to normal position and tilt the jig so that end *C* will rest on the work table and make the cut. Turn slug and repeat the two operations.

The taper or angle of the dash can be varied by backing underneath the rocker quad *E*.

To Insure Continuous Publication

The entire executive staff of the Cleveland *Plain Dealer* is proud of the continuous publication record of that paper —not a single issue having been missed in the entire 104 years of its existence. In January, however, a strike of electrical power plant workers seemed imminent. In order to preserve its unbroken publication record, the *Plain Dealer* staff printed 1000 copies of a four page issue for Friday January 12 for distribution. Happily, the threatened strike did not occur and the *Plain Dealer* continued with its regular edition schedules.

Small Layout and Register Table

FOR the smaller printing plant, the layout and register table illustrated and described in this article is a valuable piece of equipment. The pressroom in the plant of Horwood Printing in Cleveland is equipped with Miehle Verticals and Chandler & Price Presses. Manny Horwood, whose likeness appears in the accompanying illustration, designed and built the table.

The upper part or light compartment with plate glass top is built of wood and measures 24 in. wide, by 19½ in. from front to back, by 7 in. deep (outside dimensions). The ¼ in. plate glass surface measures 22 in. wide by 17½ in. from front to back, and is embedded flush top in the wooden frame. The interior of the compartment is enameled white for maximum light reflection.

Extending along the front and left edges of the cabinet a 24 in. by 14 in. carpenter's graduated steel square is fastened down with screws.

Four 17 in. Lumiline tubes (30 w., 115 v.) are mounted in the bottom of the cabinet. These tubes were selected in preference to any other lighting element because of their lighting qualities. An ordinary toggle switch mounted outside at the lower left-front section of the cabinet is used to turn on or off the current to the lighting tubes.

The cabinet is mounted on a standard office stenographer's steel table fitted with casters to permit moving the table about. An ample length of cord permits plugging into any nearby receptacle.

The graduated steel square affixed to the table top serves both as a stop against which sheets may be placed and as a working base for rules and triangles conveniently hung on the wall.

Manny Horwood, of Horwood Printing, Cleveland, before the small layout and register table built especially for pressroom using Miehle Verticals and Chandler & Price presses.

Printing Patents Report . . .

Covering patents issued December 26, January 2, January 9 and held over Pressroom Patents for period November 28 to December 19.

This data is compiled exclusively for Printing Equipment Engineer by Invention, Inc., is verified in the United States Patent Office, and is comprehensive of all patents in the field of each heading for the dates specified.

For copies of patents listed here, specify the patent numbers and send 10c for each separate patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Binding, Cutting, Perforating:

2,366,064. CONVERTED BOOK-SEWING MACHINE uses a simple chain stitch to bind large but thin work books for children and, similarly, to bind magazines that are long and wide, but fairly thin. This machine to sew books is converted by the invention from a machine intended for metal-stapling. A bar supports an open book in inverted V-shape and the book is stitched along the line of fold, saddle-fashion, while on the bar. A series of rollers are positioned above and distributed along the bar from a point near the output side of the sewing machine. Each has a circumferential V-groove into which the ridge of the bar projects. The rollers are simultaneously raised and lowered to feed a binding strip into the space between the roller and the bar and in contact with books on the bar. Invented by Henry Sieb, Hammond, Ind. Unassigned. Application October 6, 1942. 3 claims.

2,366,572. MACHINE FOR BOOK BINDING in which assembled or stapled sheets are supported and engaged along their edges by binding material under pressure. Binding material is cut in proper lengths and the machine is adjustable to books of different sizes. A roll of adhesive tape is supported on carriage and feeds over and in engagement with a flat rest and is there engaged by leaves in book formation moved endwise of the rest. Tape is moistened, prior to engaging book leaves, by a device mounted on the carriage. Folding plates in a plane below the rest receive the leaves between them and fold portions of the tape on the leaves during the movement relative to the plates. Guide plates are adjustable relative to each other for guiding the leaves during their movement relative to the rest, and folding plates guide the leaves during their manual movement relative to the folding plates. Invented by Otto W. Sutter, Fond du Lac, Wis. Assigned to American Type Founders, Inc., Elizabeth, N. J. Application August 26, 1942. 4 claims.

2,367,136. SELF-DESTRUCTIVE BINDING is achieved by this method of assembling and joining printed pages on cheap paper to provide a very low priced book. An object is to make the "best sellers" available inexpensively without destroying the normal demand for more costly permanent editions and to insure destruction of the cheaper editions to prevent spread of disease. A number of pages are arranged in superimposed relation, in the form of a pad, so that each leaf must be fully detached from the pad before the next page may be read. Triangular sections on the four corners of each page are cemented together and each triangle has a diagonally disposed incision extending across each corner at the base of each triangle. Each page may be detached by inserting the finger in the incisions and extending the lines of severance around the page. Invented by Henry H. Moreton, East Orange, N. J. Unassigned. Application October 11, 1943. 2 claims.

Composing Room Equipment:

During the period covered, no new patents have been issued which are pertinent to this heading.

Feeding, Folding and Delivery:

2,366,143. TENSION MECHANISM for machinery supplying rolls of paper to printing presses provides for using the variation in tension of the web being fed to control the tension of the running belts upon that web, thus bringing the tension of the web back to the normal desired amount. Furthermore the drag of the travelling belt is automatically first slackened and then the belts are stopped whenever the web is spliced, so as not suddenly to increase the tension of the web and cause it to tear. This is accomplished by having downward movement of the adhesive brush arm cause a shaft to move lengthwise. One end of this shaft pulls in a weighted idler roller to slacken the web and also closes an air valve which reduces air pressure in a belt-tightening cylinder, thereby slackening the belts. The other end of this shaft throws a clutch which cuts off power drive of the webs, then brakes movement entirely. Invented by Charles S. Caffrey, Port Washington, N. Y. Assigned to Wood Newspaper Machinery Corporation, Plainfield, N. J. Application January 24, 1942. 7 claims.

2,366,148. MOTOR CONTROL SYSTEM properly tensions a paper being wound on or unwound from a reel. A power transmitting connection is made between the reel and a dynamo-electric machine. The power transmitted between the dynamo-electric machine and the reel is normally maintained at a constant value during constant strip speed, but during a period of acceleration or deceleration, this value is changed by an electroresponsive device which predetermines the value change in accordance with the amount of strip material on the reel. Invented by Terryl B. Montgomery, Wauwatosa, Wis.

GROUP OF PATENTS

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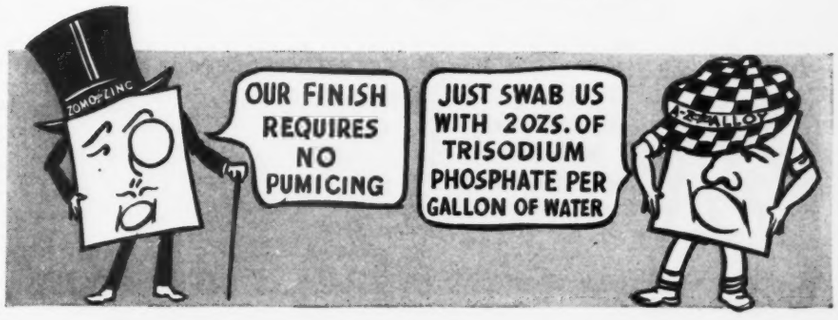
A Simple Proof of a Fine Finish

One way to be sure of flawless cuts is to make the test shown above.

Just make two or three strokes, cross-grain, with a piece of engravers' charcoal, over the machine-cut finished surface of a sheet of Zomo-Electric Zinc or A-Z Alloy. This will reveal the perfectly flat, satin-like surface of the metal – free from scratches and ridges.

This machine-cut finish is exclusive with Zomo Electric Zinc and A-Z Alloy. Produced by great, power-driven belts covered with a newly developed abrasive, the resulting accuracy of surface and tooth is not equalled by any other process used today.

You can order Zomo Electric Zinc and A-Z Alloy from your regular metal supplier.



Assigned to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Application April 18, 1941. 13 claims.

2,366,331. WEB GUIDE for a rotary printing press which controls the side-lay of web and enables it to be accurately adjusted between the drier and slitting mechanism. It is for use in a press having a printed couple, a drier, slitting mechanism, and guides for the web passing through the couple, driers, and slitters. The web passes over a pair of parallel guide rollers which rollers may be shifted at one end and in a direction normal to the run of web to and from guide rollers to change their angle with respect to the normal run of the web. Thus irregularities in the web may be compensated for and the side-lay maintained at the slitter. Invented by Charles Alonzo Harless, Oak Park, Ill. Assigned to The Goss Printing Press Company, Chicago, Ill. Application October 17, 1942. 6 claims.

Miscellaneous:

2,365,998. CONDITIONING HEATER for synthetic resin varnished paper boards. The apparatus heats these varnished paper boards so they will withstand punching, shearing, etc., without fracturing. Apparatus includes an enclosed guide for passage of the stock therethrough, at least one of its enclosing surfaces forming a wall of a chamber externally of the guide. Means are provided for attaching guide to a press so that the forward end of guide lies adjacent the press tool. Hot compressed air is passed through chamber so as to heat the guide and thereby indirectly heat the stock as it is advanced through the guide. Invented by Leslie Firth Bentley, Cambridge, England. Assigned to Pye Limited, Cambridge, England. Application October 5, 1942. 13 claims.

Plate Making:

2,365,705. PEELABLE PROTECTIVE COATING may be used on canvas or paper, on surfaces having photo emulsion coatings, on water-proof inks, on oil paintings, on textile designs, etc. It is applied temporarily over a portion of the sheet or article to protect it—for instance, to protect that portion of a complicated drawing not being worked on while another part is being worked over. Then it is peeled off. "F241-5," a product of Vultex Chemical Co., is used with other ingredients. Invented by Andrew Jeri, Brooklyn, N. Y. Assigned to Andrew Jeri Company, Inc., New York, N. Y. Application February 26, 1941. 2 claims.

2,366,083. PHOTOGRAPHIC SENSITIVE MATERIAL for preparing photographic stencils for use in silk screen and other printing processes. Difficulties of former methods are overcome by using a thin sheet of water-insoluble transparent flexible backing that is coated on one side with an intermediate film of heat-softening transparent or semi-transparent material on which is superposed an outer film of colloidal material capable of being rendered sensitive to light which may contain a pigment or dye. The backing may be of plasticized cellulose ether or ester, resins, etc. The intermediate film may be a transparent wax, vinyl resin or shellac. And the outer layer may be gelatin or glue. Invented by Ernest Robert Box and Frank Enock Kerridge, London, England. Assigned to Johnson, Matthey & Company Limited, London, England. Application October 1, 1943. 6 claims.

2,366,722. VACUUM PRINTING and COPYING DEVICE may be used in photo-engraving, lithographic and many photographic processes. A table is movable away from and toward a lamp housing. A cover glass is slidable relatively to table into positions covering and exposing the table, but is normally urged into a position exposing the table. The table may also be moved to bring a vacuum blanket into engagement with the cover glass, which may be retained in engagement by the vacuum. The cover glass may be slightly flexed to cause a photographic plate cohering to cover glass to separate from it upon breaking the vacuum. Invented by Arthur H. Gaebel, Larchmont, N. Y. Unassigned. Application July 29, 1941. 9 claims.

2,366,788. TREATMENT OF PLASTIC MATERIALS by an improved etching solution to produce ornamental or other desired effects in or on these plastic materials which are made of, or contain, esters of cellulose. The etching solution is a dilute solution of sulphuric acid of 25—75% concentration. The etching process is useful in preparing printing plates as well as in treating laminated plastics, generally. Invented by William Horback, Newark, and Walter Dempsey Paist, Orange, N. J. Assigned to Celanese Corporation of America, New York, N. Y. Application December 8, 1942. 6 claims.

DESIGN 139,880. ORNAMENTAL DESIGN FOR PLATEMAKING APPARATUS contained in a rectangular floor model cabinet which, when its shelves and its cover are closed, presents a flush panel surface on all sides. A lower front panel reveals a storage space with shelves in the bottom ⅔ of the cabinet. Side panels are hinged at their tops and are held open in horizontal position by means of braces so as to provide shelf space on either side of the cabinet. A top cover on the cabinet is hinged at the back so as to open vertically to reveal what probably is a plate washing tray. A smaller shelf and a receptacle having pockets may be hung over the sides of the cabinet when the top cover is open to provide additional space for the articles used in platemaking. Five buttons are shown on the front of the cabinet with purpose not made known by the design patent drawings. Invented by Fred A. Hacker, Cranford, N. J. Assigned to American Type Founders, Inc., Elizabeth, N. J. Application July 17, 1944.

Printing Inks and Related Chemicals:

2,366,027. DETERGENT AND WETTING COMPOSITION useful in printing pastes and in the preparation of lakes and inorganic pigments, as well as for many other purposes. Compositions are prepared by removing the ulsulfonated hydrocarbon, particularly liquid hydrocarbon (or oil derived from an aqueous mixture of water-soluble higher aliphatic or cycloaliphatic sulfonates) from crude reaction mixtures, by a liquid phase extraction with a high boiling hydrocarbon compound. Surface active compounds are then mixed with a water immiscible alcohol and a water miscible alcohol. Invented by Clyde O. Henke, Wilmington, Del. Assigned to E. I. du Pont de Nemours & Company, Wilmington, Del. Application April 1, 1942. 5 claims.

2,366,737; 2,366,738. ORGANIC COMPOUNDS useful as etching solutions for photo-engraving, dispersing assistants for printing inks, in the preparation of pigments and printing pastes, as spreading agents in adhesives, and as ingredients in a great many other industrial substances. In the first patent, 1,3-dioxolane, substituted 1,3-dioxolane or their polymers, and in the second patent, a vicinal glycol and an aldehyde or acetal, are reacted with a carboxyl-containing compound such as: monocarboxylic aromatic and aliphatic organic acids, the esters and dehydration products of these acids, and other related acids. Invented by Donald John Loder and William Franklin Gresham, Wilmington, Del. Assigned to E. I. du Pont de Nemours & Company, Wilmington, Del. Application for first patent May 27, 1941; application for second patent December 20, 1941. 30 and 9 claims, respectively.

2,366,970. QUICK-DRYING PRINTING INK comprises a pigment and a venicle including zein, a water-soluble urea-formaldehyde resin, and a water soluble glycol in which the zein and resin are dissolved. Carbon black, lamp black and blue pigment are pigments used in the examples. By this combination of resins in the vehicle, premature precipitation and drying of ink on the distributing system and printing plates is said to be avoided. Invented by John W. Kroeger and Harry F. O'Connor, Philadelphia, Pa. Assigned to Fred'k H. Levey Co., Inc., New York, N. Y. Application October 25, 1941. 4 claims.

2,367,072. DYES USEFUL IN PRINTING INKS and textile printing pastes for dyeing paper and textiles. They are prepared by diazotizing an aromatic acyl dicyandiamide which contains an amino group in the aromatic ring and then coupling it with an aromatic coupling component containing an amino or hydroxyl group attached to the aromatic ring through the diazoic group. Invented by Jack T. Thurston, Riverside, Conn. Assigned to American Cyanamid Company, New York, N. Y. Application February 26, 1943. 12 claims.

(*Continued on Page 40*)

Sharp!

That's what they say about Burgess Chrome Mats, too! Clean cut, snappy reproductions of type and half-tones . . . from mats that are laboratory made and tested.

Burgess Chrome Mats are easily manipulated . . . they stand up and deliver . . . and the last cast will be as sharp as the first.

Stereotypers expect . . . and get these superior results from Burgess Chrome Mats. If you're not using them you should give your reproductions a "break" . . . you'll then appreciate the difference a really good mat makes.

A Laboratory Product
BURGESS Chrome MATS

This advertisement printed from plate made from a Burgess Supreme Tone-Tex Mat

BURGESS CELLULOSE COMPANY
Manufacturers and Distributors of Burgess Chrome and Tone-Tex Mats
FREEPORT • ILLINOIS
Pacific Coast Representative
RALPH LEBER CO. 426 Polson Bldg SEATTLE WASH.

Two Products That Improve Newspaper Printing—

TRU-MOLD MOLDING BLANKET and "FLECTO" BACKING FELT

Different from all other blankets now on the market, Eastern TRU-MOLD Cork Molding Blankets have the correct percentage of Bakelite incorporated in the cork composition binder to insure perfect density. That's why they permit sharper impressions. And this blanket has greater flexibility to hold edge-cracking to a minimum.

TRU-MOLDS are now available in "Medium," "Medium-Hard" and "Hard" density. Try them once and you will be convinced of their superiority.

Sizes	1/4" Each	5/16" Each	3/8" Each	3/16" Each
20" x 24"	$2.50	$3.75	$4.50	.....
21" x 25"	2.75	4.00	4.75	$2.50
22" x 26"	3.00	4.25	5.00	.....

(One size only on 3/16"—21" x 25")

"FLECTO" GUMMED BACKING FELT must be used to be really appreciated. You will find that it sticks fast on any mat, regardless of heat used in scorching. Its adhesive will not crack, peel, slip or crystallize.

More than that, you can tear "Flecto" easily and cleanly, without ragged edges.

Each and every sheet is gauged accurately and uniformly throughout. Here is one backing felt that will not peel or separate in layers.

And finally, you will find that "Flecto" is soft and pliable, assuring conformity to the mat and easy shrinking with the mat. Hundreds of newspaper executives say that "FLECTO" IS THE BEST BACKING FELT THEY EVER USED.

GAUGES AND SIZES

Gauges .021, .025, .030 (Green) sheeted 18" x 24".

Gauge .035 (Red) sheeted 18" x 24".

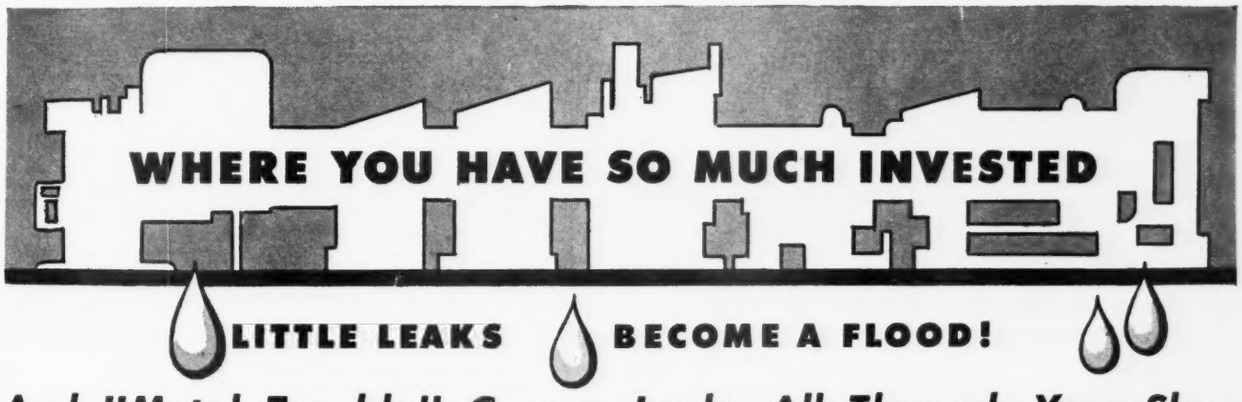
Gauges .040, .045 (Green) sheeted 18" x 22".

Gauges .050, .060 (Gray) sheeted 18" x 22".

Cut into strips 9" or 18" long and 1/8" to 1" wide at no extra charge.

EASTERN NEWSPAPER SUPPLY CO.

9603 NORTHERN BOULEVARD **CORONA, L. I., NEW YORK**



And "Metal Trouble" Causes Leaks All Through Your Shop

IF needless waste of type metal (often amounting to ⅓ of the total annual bill for type metal alone) were the *only* loss caused by metal troubles on line casting machines, it would be bad enough.

But this is only the beginning! Metal troubles also may cause machine "down time" averaging ½ hour per day per machine, or a $2.50 to $3.00 loss daily. Then add cost of corrections for hollow, dirty or fuzzy slugs, plus cost of slowed-down composing room operations, and you have a large total loss.

That is why the MONOMELT SYSTEM of type metal handling pays such high returns on its small cost:

it virtually eliminates metal troubles . . . speeds up casting . . . saves type metal . . . saves labor . . . and assures crisp, clean type for your printed page, cast exactly as it was designed.

Printers and publishers since 1924 have equipped their shops with over *9000* complete MONOMELT SYSTEM units! Learn how much *you* can save, with Monomelt.

Write for facts about recent Monomelt survey.

MONOMELT COMPANY 1611 POLK STREET N. E. MINNEAPOLIS

2,367,073. ARYLAZOAROYLGUANYLUREAS AND THEIR SALTS useful as dyes having the same general applications as the compounds described in patent 2,367,072, preceding. They are prepared by diazotizing an aromatic acyl guanylurea which contains an amino group in the aromatic ring and then coupling it with an aromatic coupling component as is used in the process of the preceding patent. Invented by Jack T. Thurston, Riverside, Conn. Assigned to American Cyanamid Company, New York, N. Y. Application May 28, 1943. 9 claims.

The following Press Patents were held over from the January issue:

Printing Presses and Equipment:

2,363,560. CHASE including bearers for cooperation with the cylinder bearers on a printing stroke and thus permitting the full width of the bed, except for the transverse dimensions of the longitudinally extending chase bars, to be used for the form. The form may be made up off the press and no change in the standard mode of setting up the form is required. Means are provided for fastening the chase to the bed in proper position so that the bearers which form part of the chase and which take the place of the standard bed bearers will properly cooperate with cylinder bearers and with end portions of the chase. It is not necessary to screw down the bearers on any part of the chase. Invented by Joseph Sinkovitz, Pittsburgh, Pa. Assigned to Miller Printing Machinery Co., Pittsburgh, Pa. Application January 21, 1941. 8 claims.

2,363,817. ROTARY PRINTING PRESS in which a cleaning roller of rubber or rubber-like composition is rotated against the surface of the ink drum at areas where ink collects and is not used up. An ink softening agent is supplied to the surface of this roller to be transferred to the ink drum and a scraper blade is provided to remove the softened ink. A sight-feed oiler may be used to apply measured quantities of cleansing agent to the cleaning roller. Invented by Auburn Taylor, Charleston, W. Va. Assigned to The Goss Printing Press Company, Chicago, Ill. Application September 14, 1942. 18 claims.

AUTOMATIC MAKEREADY COMES STILL CLOSER WITH
DIAMOND CUT PRECISION
EDES Gravure Finish
COPPER
Diamond cutting for flatness gave engravers their eminently superior Edes Gravure Finish Copper, the first basic improvement since 1892!
Now, improved application of this exclusive, patented process achieves new degrees of perfection.
Tolerance in precision-gauged thickness can be guaranteed not more than .0005".
Flatness is so nearly perfect, no deviation from absolute is revealed through use. Surface grain doesn't exist. The "tooth" is further improved.
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ST. LOUIS: Mid-West Photo-Eng. Supply Co.
WASH., D. C.: E. H. Walker Supply Co.
RICHMOND, VA.: E. H. Walker Supply Co.
BOSTON: Allan B. Croke Co.
BUFFALO: C. S. Illingworth
DETROIT: R. L. Porter
CINCINNATI: G. C. Dam Supply Co.
SAN FRANCISCO: J. W. Feinstein
ATLANTA: Chemco Photoproducts Co.
Thompson-Hayward Chemical Co.
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WICHITA, MEMPHIS, DALLAS, OMAHA,
KANSAS CITY, OKLAHOMA CITY,
DES MOINES, HOUSTON, SAN ANTONIO
EDES Engraving METALS
Regular Zinc
Hard Matrix Zinc
Triplemetal
Copper
Brass
Gravure Sheets

2,364,264. FLUID DISTRIBUTING APPARATUS useful in applying water to the repellent rolls of offset printing presses, as well as in adding water to cloth shrinking machines, and applying other fluids to sheets of paper, cloth, metal, etc. It includes a fluid circulatory and distributing system having a device for discharging drop-like particles of uniform size at predetermined rate as determined by speed of movement of two relatively movable discharge controlling members, the quantity of fluid in the particles being determined and maintained uniform by the pressure with which fluid is delivered for distribution. Invented by Lucien I. Yeomans, Chicago, Ill. Unassigned. Application September 15, 1939. 5 claims.

2,364,277. SILK SCREEN PRINTING MACHINE that is automatic in action, requires no special form of screen, and avoids handwork entirely. Machine is adapted to small runs as well as large runs and it is possible to run two separate jobs at same time, provided that same color is to be used with both. A loop-shaped carrier is provided for two printing screens. The carrier is inverted to bring the screens into working position, one at a time, the carrier then being given a longitudinal straight line movement, in order to cause screens to pass, also one at a time, across a wiper. Movement of carrier actuates a bed on which material to be printed is supported, regardless of whether one or both screens are used. Invented by John B. Dey and Landon Hayden, Lynchburg, Va. Application January 30, 1942. 8 claims.

2,364,504. WIRE STAPLING MECHANISM for rotary printing presses in which the staples are inserted in traveling products relatively close together longitudinally of the stapling cylinder so that a number of staples may be placed in relatively small products. The staples may be fixed in associated products between a pair of cooperating cylinders, one of the cylinders and its operable components being arranged to receive staple forming wire from a number of wire forwarding heads. Invented by Adolph M. Zuckerman, New York, N. Y. Assigned to R. Hoe & Co., Inc., New York, N. Y. Application June 24, 1942. 9 claims.

2,365,278. FLAT BED PRESS INCORPORATING A ROTARY UNIT with a plate cylinder and a second impression cylinder as a part of the press. The rotary unit is so angularly arranged and positioned with respect to the first impression cylinder and the bed as to provide a compact arrangement of the various press mechanisms and to render the bed freely accessible. A two-revolution impression cylinder is used for the flat form and a three-revolution impression cylinder for the rotary form, each large enough for the maximum form. A sheet is transferred from the flat bed unit to the plate cylinder unit without turning the sheet over or "smutting." Invented by William M. Kelly, Westfield, N. J. Unassigned. Application August 15, 1941. 12 claims.

The following Press Patents have been granted since the January issue:

Printing Presses and Equipment:

2,366,199. MOTION MECHANISM for delivering ink to a printing form provides for transmitting oscillatory motion from a driving member oscillating in a vertical longitudinal plane to the vibrator rollers which oscillate or vibrate in a horizontal transverse plane. A pair of angularly oscillatable arms are used, a link joining the arms. Link is pivoted to one arm and has an adjustable connection with the second arm. The adjusted position on the second arm determines the relative amplitude of oscillations of the arms. A guide for the link is longitudinally slidable with respect to link, and the link and the second arm both turn and slide relative to each other upon oscillation. The guide may be shifted to adjust the connection along the second arm. Invented by John Kunz, Pittsburgh, Pa. Assigned to Miller Printing Machinery Co., Pittsburgh, Pa. Original application August 3, 1940; divided and this application October 17, 1941. 13 claims.

2,366,300. CALENDAR-PRINTING MACHINE which continuously and automatically prints calendar sheets in sequential order. A number of rotatable printing heads are used, each head carrying a series of calendar data to be printed on sheets differing from data on the other heads. Driving mechanism is associated with each head and a plunger engages each driver to rotate each head one step at a time. A chain having a link corresponding to each day of a year is rotated one link at a time by the plunger. The position of the printing heads only need be changed after all the sheets for any particular month have been printed. Invented by John C. Wahl, Chicago, Ill. Unassigned. Application May 28, 1943. 20 claims.

2,366,335. SELECTIVELY OPERABLE CYLINDER AND INK ROLLER TRIPPING MECHANISM for multi-color offset lithographic printing machines in which fixed oil-tight bearings are provided for the ink distributing cylinders and in which certain of the inking rollers rotate about fixed centers. In order to provide for variation in the diameter of the ductor roller, the mechanism for supporting and swinging the ductor roller provides means for adjusting the axial distance of the ductor roller from the fountain roller by rotation of the eccentric bushings in which the bearings are carried. The pressure of the ductor roller against the inking roller, toward which it is swung by rotation of a cam, is separately adjusted by properly positioning a screw in a slot which is link-connected to the ductor roller. Invented by William F. Huck, Richmond Hill, N. Y. Assigned to R. Hoe & Co., Inc., New York, N. Y. Original application March 13, 1939, now patent No. 2,300,549, dated November 3, 1942; divided and this application May 24, 1941. 20 claims.

The Single Color
Offset Press

By I. H. SAYRE

THE PURPOSE of this book is to offer a detailed technical explanation of the operation of the small single color offset printing press. It also carries recommendations for approved methods of printing technique and press care which apply to all offset printing. Much of the technical operating information applies to all makes of small offset presses. Should be in the library of all executives interested in offset printing.

Section I deals with Harris offset presses.

Section II deals exhaustively with materials used in offset printing.

Section III deals with ATF's Webendorfer single-color offset presses.

Generously illustrated with 99 figures in line and halftone; 284 pages; size, 6 in. by 9¼ in.; bound in blue cloth, cream stamped lettering.

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By

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For printers, publishers, designers, typographers and layout men!

IF you haven't thought of it in that way before now, it is your prime responsibility to assist in the nation's eyesight conservation. How you can assist in this vitally important phase of your profession will become apparent to you after reading this book.

Type faces, length of line, leading between lines, paper, ink, printing method, and lighting are some of the factors involved in eyesight conservation.

The text of the book is such that the language of the research scientist and the technician so far as possible have been brought together through the use of printers' language.

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MORLEY TRUTONE MATS

PRETTY girls always stand a chance at popularity polls, and so do Morley Trutone Mats! They make a deeper, more lasting impression . . . give your illustrations and printing vivid clearness. Morley Trutone Mats get greater depth, reduce fracture at the molding machine . . . are more durable in the casting box. No wonder they're a winner!

THE MORLEY COMPANY

PORTSMOUTH, NEW HAMPSHIRE

2,366,375. INKING MECHANISM for a printing press in which a fountain roller is partially immersed in a fountain of ink. A mixing roller is frictionally driven by the fountain roller to roll entirely within the body of ink. The mixing roller is grooved on its periphery and is positively urged toward the fountain roller to establish and maintain driving peripheral contact by a spring pressed plunger seated within a bore in the mixing roller and adapted to press against an inclined face within the fountain to spring-urge the mixing roller relative to the fountain roller. Invented by Emory W. Wortnington, Chicago, Ill. Assigned to The Goss Printing Press Company, Chicago, Ill. Application January 14, 1944. 12 claims.

2,366,884. COMBINED DUPLICATING AND PRINTING MACHINE in which the inking assembly is mounted in juxtaposed relation to a reciprocating bed and has form rollers lying normally in the plane of the type carried by the bed so that ink may be applied to the type. Control flanges for the rollers provide a medium through which rollers are moved out of the plane of the type, relative to the inking assembly. A duplicating unit may be mounted on bed with its duplicating surface in type plane. The surface of duplicating unit contacts the flanges to move the rollers out of contact with duplicating surface as it passes under the rollers. The duplicating unit may be applied to any part of the printing chase so the unit controls the machine and especially the inking mechanism. Invented by John Duke Tyler, Stamford, Conn. Unassigned. Application July 2, 1941. 12 claims.

2,366,930. SAFETY GUARD FOR INTERRUPTED CYLINDERS of rotary offset printing plates which protects operator from injury. A pair of segmental guards are slidably mounted in arcuate guides for closing and opening movement of the guards across the gaps and over the surface of the dead sector, the latter being of such a radius that the guards, when over dead sector, will be nearer the center of cylinder than the effective contact surface of the cylinder. Guards may be positioned either in the same radius of curvature as each other so as to abut when open, or may be arranged to overlap each other when open. Guards may be automatically closed in opposite directions, each guard cooperating in open position with an automatically operating locking device adapted to be automatically released by a tripping device on partial rotation of the cylinder. Invented by William James Pirie, Edinburgh, Scotland. Unassigned. Application February 5, 1944. 5 claims.

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D. C.

Materials Handling Catalog

The Lewis-Shepard Co. recently published an 8½ in. by 11 in., 76 page general catalog No. 22 which is devoted to descriptions and illustrations of the company line of materials handling equipment. Special sections in the catalog are devoted to lift trucks, skid platforms, power fork trucks, stackers, cranes, floor trucks, storage racks and specially built materials handling equipment. Many illustrations printed in duotone show various kinds of equipment in use. Pictures of each kind of device are shown separately in ample size outline halftone form. Printed in three colors throughout. Ask for it from Lewis-Shepard direct or *Printing Equipment Engineer* will be glad to pass along your request.

Demonstrate New Equipment for Making Electrotype Plastic Molds

BEFORE an audience of printers and Graphic Arts executives in the Minneapolis-St. Paul area, the new plastic mold electrotyping process (developed by Printing Plates Research, Inc.) was recently demonstrated in Minneapolis. The exhibit was sponsored by the Monomelt Co., designers and manufacturers of equipment used in the new process.

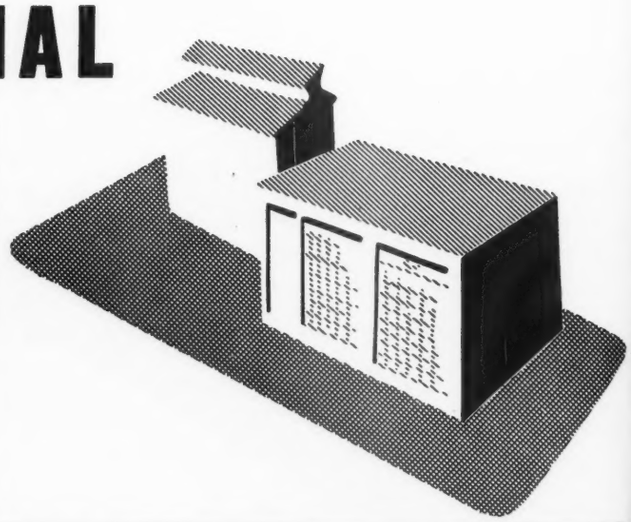
With the assistance of Elsworth G. Carl, electrotype molder for the Capital City Printing Plate Co. of Des Moines, Ia., Monomelt officials illustrated the various steps in the making of electrotype molds.

Several special pieces of equipment were shown: A thermostatically controlled electric form heating unit which mounts on the front of a standard hydraulic molding press; a water-cooled unit for setting the plastic molds; a vacuum device for removing molds from the silver shells; and a rotary cutter for trimming plastic molding sheets to size.

In the demonstration, a type form was preheated on the lower platen of the heating unit. A Vinylite plastic sheet, backed by a sheet of glassine and a felt blanket, was placed directly on the form and the upper platen lowered for a short time to heat the Vinylite to proper plasticity.

The platen was then raised to permit the lower platen, bearing the type form and its plastic sheet, to slide forward on

Hamilton Equipment
is **ESSENTIAL**



Whatever kind of printing plant you operate, there is a requirement in it for Hamilton equipment. You may set type by hand or by machine, or you may buy all your composition "outside". Before type forms go to the press, necessary work must be done on them. This work is done best on Hamilton Type Cabinets and Hamilton Imposing Tables.

Handwork is expensive and should be done only under conditions that will promote efficiency. There is a Hamilton cabinet to fit every composing room need.

TWO RIVERS WISC.

HAMILTON MANUFACTURING COMPANY

During these days you need more than ever before the trouble-free performance of VULCAN Blankets on your printing-presses.

VULCAN Press Blankets reproduce news-pictures, advertising display illustrations, headlines, body and fine typematter clearly and cleanly. The satisfaction of producing better printing on time, as scheduled, warrants using VULCANS.

Use VULCAN Blankets on your Presses. Notice their trouble-free operating qualities . . . their pliability . . . resilience . . . freedom from bolstering . . . their uniformity of thickness . . . lack of stretch . . . their smooth, non-porous surface. . . their imperviousness to oil and inks . . . their durability.

A moderate stock of Vulcan Press Blankets now on hand enables us to make deliveries with reasonable promptness.

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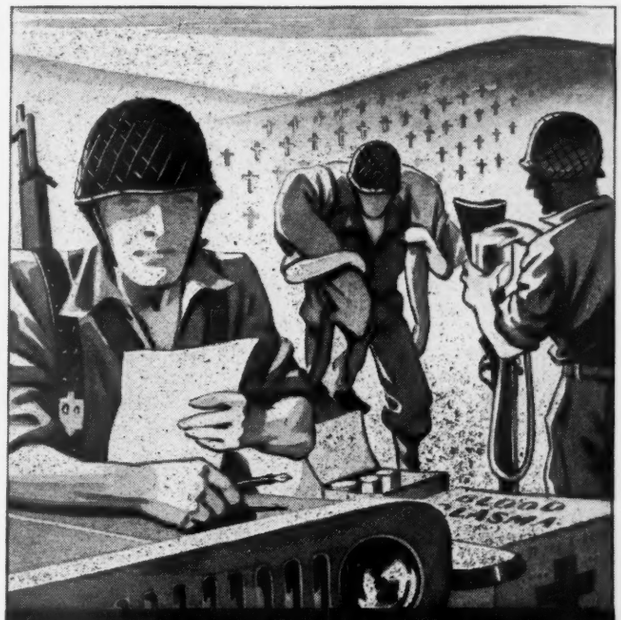


THE KID "TYPES" A NUMBER OF GRIPES

Dear Pop,

You've heard a lot about G. I. Gripes—and a lot are true—but they're just excess steam. We're ready to accept every condition we must face—to get and hold a beach head, knock out a pillbox, or take an objective—and other things too horrible to go into details.

Yet our type of Gripe doesn't hurt the war effort—mostly, as Ernie Pyle has reported, "Gripes improve a G. I. Joe's morale". But there's another type of Gripe that gripes us. Yep, you've guessed it, Pop. It's the "Home Front" Gripe—about rationing, shortages, "discomforts" (?) from lack of butter, sugar, train accommodations, etc.

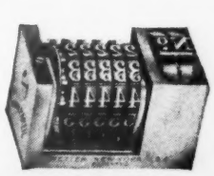
We can laugh off even these Gripes, Pop. But the real No. 1 Gripe that sticks, is when we hear that some folks think THE WAR IS OVER!

It's over, all right, for our buddies beneath the crosses! But it's not over for us still over here. So, Pop, if any guy tells you "THE WAR'S OVER"—just tell him to go to . . . or better still, to c'mon over and we'll show him whether it's over or not!

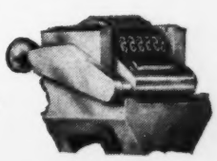
Oh! yes Pop—the Purple Heart came through—and it makes up for all that went before.

P.S. Keep the bonds and blood plasma quotas up, Pop.

The Kid



Wetter Lock-Wheel
One of many models



Wetter Rotary
One of many models

WETTER NUMBERING MACHINE CO.

ATLANTIC AVE. & LOGAN ST., BROOKLYN, N. Y.
Sold by all dealers and branches
AMERICAN TYPE FOUNDERS

7831

a trackway into a standard hydraulic press. The press was closed and held under pressure. The type form was then transferred to the cooling unit for setting the mold, which was then stripped from the form and taken to the silvering booth.

In the silvering booth, the plastic mold was clamped on a revolving table set at an angle. The solution was applied by spray gun, the spray residue being carried away by an exhaust fan. After silvering, the shell was ready for electrotyping by standard processes.

Advantages claimed for the new method include the following: (1) Accuracy of reproduction, equalling that of best lead molds. (2) Molds can be used over again for making duplicates. (3) Use of graphite nuisance is eliminated. (4) Low molding pressure can be used, allowing use of light equipment. (5) Molds can be shipped without special packing; weight 3 oz. for a 12 in. by 15 in. sheet. (6) Type forms are kept clean—free from black lead and wax. (7) Used molds can be softened and flattened for reuse. (8) Plastic molds may be stored indefinitely.

Ty L. Hopgood, production engineer with the Linotype Company is now covering all of Oregon formerly covered by H. B. Royce and W. E. Purnett, as well as several towns in Idaho and Washington. He will make his headquarters in Portland. Karl Ponath continues to cover southern Oregon for Linotype, Mr. Royce continues to cover western Washington.

TWIN CITY EXECUTIVES see the new plastic mold electrotyping process demonstrated by the Monomelt Company (Minneapolis). Grouped around the double-platen heating unit containing the made-up type and plate form are: Felton Colwell, president of Colwell Press; John Chelberg, production manager of Printing, Inc.; A. H. Pahr, production superintendent of Augsburg Publishing Company; H. H. Wentz, field secretary of Graphic Arts Industry, Inc.; C. H. Jensen, president of Jensen Printing Co.; Wm. T. Koester, general manager, Western Newspaper Union; P. H. Vierow, Western Newspaper Union; H. N. Bruce, general manager, A. M. Chesher Printing Company; F. X. Mahowald, superintendent of A. G. Johnson Electrotype Company; E. C. Boynton, foreman of the lithographing department, Printing, Inc.; and Wm. H. Thompson, vice president of the Monomelt Company, also L. R. Johnson, secretary of A. G. Johnson Electrotype Co.

At extreme right, preparing to lay the black plastic sheet on the type form, is Elsworth G. Carl of the Capital City Printing Plate Company (Des Moines).

Announcement! Now Comes

THE IMAGE REVERSING LENS

to augment the

Straight Line Image Reverser

In Photo Engraving and Deep Etch Offset Plate Making, Photostat, and similar processes, reversed images are required.

When Dry Plate Films are used, they are printed on metal through the back of the film which is fatal to perfect results.

Since 1940, images are being reversed in the Camera by the use of Series A or Series B Straight Line Image Reversers, producing images up to 70″ in size.

Now, images can also be reversed by the use of the new Series C and Series D Image Reversing Lenses. Each of the four devices meet various requirements.

The Image Reversing Lens is a new contribution to Graphic Arts Service for the Post-War period by Wm. C. Huebner.

IMAGE REVERSERS
Series A and B
PRECISION IMAGES
Size up to 70″

HUEBNER *Laboratories*
305 EAST 46TH STREET
NEW YORK 17, N. Y.

IMAGE REVERSING LENSES
Series C and D
Copy & Image Centering

Linotype Machinists,

who have less help than ever, will appreciate these two ***New Time Saving*** improvements:

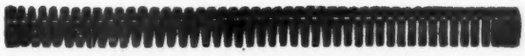
DIAL TYPE THERMOMETER

(Part No. Z-19 — $12.00)

Face-up Indicator Dial means no more squinting or contortions necessary to read temperature .... Needle comes to point quickly .... All metal — No mercury — No glass stem to break.

SECOND ELEVATOR STARTING SPRING

(Part No. B-238A — $.60 each)



This Flat Coil Spring, of entirely different steel, has none of the brittleness of the present type. It will outlast many of them, and save many a Distributor Box Bar from broken ends . . . Replace all the broken Second Elevator Starting Springs now on your machines and you will have one less detail to worry about for many years.

ACE BELTS are made under special processing patents. Others can only be imitations.

PRECISION TRADE ★ MARK

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Factory and Main Office:
WEATHERLY, PA.
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Cut Mounting

THE E. A. BOOTH RUBBER CO.
364 Rockefeller Bldg., Cleveland 13, Ohio

Interesting Observations by Louis A. Lara As Result of Trip Through Latin America

RECENTLY, Louis A. Lara of J. M. Huber, Inc., New York, completed a 20,000 mile air trip, covering Mexico, Guatemala, Panama, Colombia, Ecuador, Peru, Chile, Argentina, Uruguay and Brazil. The trip extended over a 3½ month period.

In most of the countries visited by Mr. Lara the Graphic Arts Industry has grown steadily since his last visit six years ago. Most print shops are very busy. The growth in this industry is a direct result of the educational program some countries have put into effect in the last 10 years or so. This growth is also a reflection of the industrial growth and the thirst for advertising. Childrens' magazines is a good example of the spread of education. Calendars, booklets and labels, reflect industrial growth. The number of new publications and their circulation has grown.

Many plant executives are planning new and modern buildings. They all need new equipment which they hope and pray the USA will be able to supply soon. Their fears are that American manufacturers may be so swamped by domestic and even European orders that we may neglect them or may not assign enough of a quota to Latin America.

Mr. Lara sounds a word of warning to American manufacturers of printing equipment. He said at least two English manufacturers are actively promoting the sale of new offset and letterpress equipment. Delivery is being promised within 6 months or a year. In fact, there are two new English two-color offset presses in a modern shop in Chile, installed within the last four-six months. The Latin America Graphic Arts Industry looks to this country for new ideas and new methods of printing.

Mr. Lara stated that Latin American newspapers, as far as format and presentation are concerned have been patterned after our newspapers. They also have their screaming headlines, colored mastheads and advertising. The oldest and more conservative ones still carry classified ads on the front page, notably *La Prensa* of Buenos Ayres, *El Mercurio* of Santiago, Chile, and *Jornal do Comercio* of Rio. Latin American papers have felt the newsprint shortage badly. They have cut down on the number of pages, circulation and advertising, and there's no relief in sight unless Sweden can export more newsprint. Newspaper advertising has kept pace with progress made by local industries. Circulation is low in most countries in relation to population, and as measured by American standards. But education is being promoted and since radio doesn't offer immediate competition (some newspapers own radio stations) the publishing business is sound.

The attitude of the great majority of the peoples of Latin America, is pro-USA and pro the democracies. Most countries are sincerely democratic and are cooperating 100%. There is spotted criticism of USA purchasing policy of essential raw materials or rather stop orders for purchases after they were encouraged to step up production, but that is a natural, human reaction. Of course they expect to sell a lot of products to European countries after the war, but wonder how they are going to be paid for them. They trust the USA will sincerely and effectively promote two-way trade after the war.

Lighting Exposition Postponed

It was announced in the December issue of *Printing Equipment Engineer* that the International Lighting Exposition was to have been held in Chicago on April 19-23. S. R. Naysmith, chairman of the Industrial and Commercial Lighting Equipment of the National Electrical Manufacturers Association now announces that the Exposition has been postponed until some time next year. This action was taken by the association in an effort to cooperate with the expressed desire of War Mobilization Director Byrnes to reduce travel resulting from conventions and expositions.

Wanted

3 USED GATHERING, STITCHING AND COVERING MACHINES

to accommodate ten or more signatures. Page size 11 in. by 14 in.

TRIANGLE PUBLICATIONS, Inc.
400 North Broad Street
Philadelphia 1, Penna.

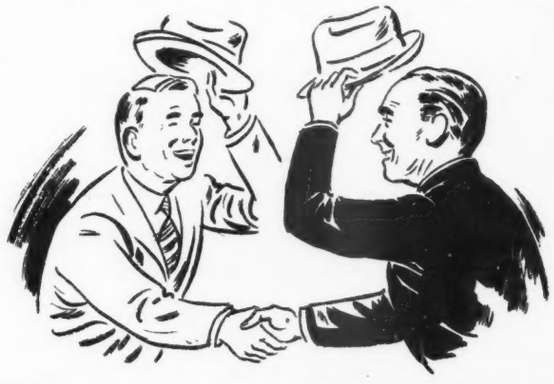
MATERIALS HANDLING

This book by Harry E. Stocker is of vital interest to mechanical and production executives in printing and publishing plants.

While not written specifically as a treatise on materials handling in the printing plant, yet a great deal of its text will be of value in the handling of materials in the plant and outgoing shipments from the plant.

Bound in light buckram, 309 pages, many illustrations, size 6 in. by 9¼ in. Price $5.00 per copy, cash with order.

PRINTING EQUIPMENT ENGINEER
1276 West Third St. Cleveland 13, Ohio



"My hat is off to YOU"

—remarks the Pressroom Superintendent, "We are getting such excellent plates!"

"I assure you it is a pleasure to send them to such a well managed press room" counters the Stereo Superintendent.

Not every plant offers this picture of blissful harmony. The ones we know about, where this scene might have been enacted, are plants where stereo operations are speeded and improved by deep molding, quick scorching Certified Mats, that yield excellent first casts and perform dependably day after day.

CERTIFIED DRY MAT CORPORATION
9 Rockefeller Plaza
Dept. M,
New York 20, N. Y.

For dependable stereotyping rely on Certified Mats

Certified DRY MATS

A GREAT *Combination* CHALLENGE

LABOR-SAVING IRON FURNITURE
MAMMOTH IRON FURNITURE *and*
HI-SPEED QUOINS

Fill out the form with Challenge Labor-Saving Iron Furniture and Mammoth Iron

...Then lock-up accurately with Challenge HI-SPEED QUOINS

The Best Print Shops Use Them For Top Quality Printing . . .

- **CHALLENGE LABOR-SAVING IRON FURNITURE** is made in over 100 standard sizes from 2x4 ems pica to 10x70 ems pica. Only a specially selected mixture of close-grained iron is used in making this furniture. Precision machined on all sides and with *Velvet Edges* to insure lasting accuracy and easy handling.
- **CHALLENGE MAMMOTH IRON FURNITURE** for filling large space is made in 70 sizes from 15x15 to 60x120 picas. Same material and precision accuracy of finish as smaller furniture.
- **CHALLENGE HI-SPEED QUOINS** save up to two-thirds of the lock-up time with ordinary quoins. Made of finest steel, rust-proof plated in six handy sizes—4½ to 12 inches.
- **WRITE** for complete data and prices today on these money-savers.

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BACK THE INVASIONS --- BUY MORE WAR BONDS!

504

THE CHALLENGE MACHINERY COMPANY
"Over Fifty Years in the Service of the Graphic Arts"
GRAND HAVEN — MICHIGAN

She wouldn't be working overtime

IF *her boss used the* PLUS PLAN

Serious metal trouble developed late in the afternoon—the plant was full of important work—something had to be done—and quick! That's why this young lady worked overtime sending out wires and letters. All this wouldn't have happened if the superintendent had put his metal on an Imperial Plus Plan basis and had sent samples regularly to Imperial for analysis. To avoid unexpected metal troubles, and to insure the best in type metal and dependable service, "Imperialize" your plant with the Plus Plan . . . May we send particulars?

IMPERIAL TYPE METAL CO.
Serving the Graphic Arts Industry Only
PHILADELPHIA NEW YORK CHICAGO

Imperial

Tenets for Business

IN a statement issued recently, President George S. May of George S. May Co., presented a list of Ten Tenets which he believes should be regarded by management as of prime importance to the conduct of business.

Mr. May stated that one hopeful fact stands out above today's confusion. That is the fact that if a man is prepared for the future he need not fear it. He can prepare himself to dominate that future by realizing the basic truth that managements — not products — compete, and then do the things today that will make him a manager more than able to cope with the problems of tomorrow.

He cited ten management controls or measurements which management must understand and know how to apply. In abbreviated form these are as follows: (1) Build a sound organization. The authority and responsibility of each activity in administration, operation and sales needs to be definitely set. (2) Carefully appraise employees. Personnel evaluation will become of increasing importance during the reconversion period. A sound program of employment-management relations needs to be built up. (3) Eliminate wastes through cost finding. (4) Establish a complete expense control. Lack of adequate expense control results in "half-baked" decisions based on guesses, snap judgments, or blind following of precedent. (5) Put into effect a systematic control of production. With the first four tenets in operation, management is in a

George S. May presents 10 Tenets for business in 1945.

position to consider production control which is a major industrial device for reducing waste in actual production time. (6) Make an efficient plant layout. Reconversion will require many changes in plant layout. The logical sequence of processes should be maintained to economize time, distance and cost. (7) Install a scientific wage incentive plan. More than 50% of all manufacturers now use some form of wage incentives, but many of these plans are antiquated and need revision. Incentives should be extended to include indirect labor as well as direct, and should also be applied to supervisory and key personnel. (8) Seek constant improvement of all methods. In the postwar period the need for constantly improving methods in various mechanical aids, and in employee-management relations, will be imperative. (9) Set up and maintain high standards of quality through control. (10) Make sure of your markets. In the scramble for markets after the war, the greatest sales responsibility will be selecting and acquiring markets and charting sales and distribution. Old markets may have migrated. New Markets will have to be built up. "To plan soundly, you must use *facts*—not guesses.

Ready Reckoner Revised

A revision of Intertype's Ready Reckoner has been announced. This is a 24-page booklet containing copy-fitting tables covering all of the best Intertype faces as well as those of all other manufacturers when the alphabet length is known. Anyone who is interested in the subject of copy-fitting may receive a free copy of this booklet upon request to Intertype Corporation, 360 Furman Street, Brooklyn 2, N. Y., or any of its district offices.

Color Code For Safety

Color Code For Safety is the title of the sixteenth folder in the Color Facts series issued by the Eagle Printing Ink Co., Division of General Printing Ink Corporation, 100 Sixth Avenue, New York 13, N. Y. While color has frequently been used for safety, many of its applications have been inconsistent and confusing. The du Pont Code illustrated in this folder offers an opportunity to standardize safety practice. To obtain a copy write to the Eagle Printing Ink Co., Div. of General Printing Ink Corporation.

USE

BEVERIDGE DRY MATS

For Faithful Reproduction

- **BEVERIDGE HI-SPEED MATS** *For Curved Newspaper Work*
- **BEVERIDGE HI-CUSHION MATS** *For Commercial Work*
- **BEVERIDGE MULTI-CAST MATS** *For Automatic Equipment*
- **BEVERIDGE EXCELLO MATS** *For Flat Transfer Work*
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Manufactured by

THE BEVERIDGE PAPER CO.

INDIANAPOLIS 4, IND.

BUMP PUMPS

SLOW SPEEDS
SELF PRIMING
POSITIVE ACTION
NO CHURNING ACTION
ONLY 2 MOVING PARTS

The Original Designer and Manufacturer who introduced BUMP Pumps to the Industry

Principle of Operation

POSITIVE displacement type that is capable of operating at slow speeds without agitation, churning action or vibration within the pump. Bump Pumps have few parts so that maintenance is at a minimum. In use on printing equipment by many manufacturers. Bump Pumps deliver a constant volume per revolution that is not affected by speeds or pressures. Easy to install for any service. Consult our engineers on your pumping problems and postwar plans.

Complete catalog information upon request

The BUMP PUMP CO.

LA CROSSE ★ WISCONSIN

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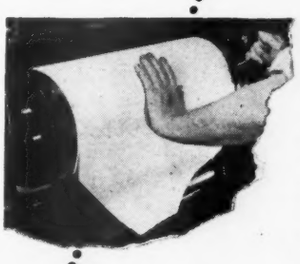
TO CRAFTSMANSHIP

Printing is at once an art, a profession and a trade . . . That for 141 years Johnson Inks have met three so divergent, yet precise requirements, is testimony to the maker's craftsmanship.

CHARLES ENEU Johnson AND COMPANY
GOOD INKS SINCE 1804

Philadelphia • New York • Chicago • Boston • St. Louis • Cleveland
Detroit • Baltimore • Kansas City • Pittsburgh • Atlanta • Dallas

Time-Tested TYMPAN
for Precision Printing



For forty years, we have specialized in the manufacture of quality tympan. The toughness . . . the uniformity . . . the guaranteed "give" . . . the immunity to humidity and temperature change . . . the resistance to oil and grease and ink solvents . . . every one of these essentials are part and parcel of CROMWELL special prepared TYMPAN . . . the tympan that has proven its superiority by years of press-run proof.

CROMWELL TYMPAN is available at your local distributor in sheets and rolls to fit any high speed press.

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SPECIAL PREPARED
Tympan

Announces Plan to Increase General Endowment Fund for the Department of Printing

A PLAN to seek $500,000 in endowment funds for the Department of Printing at the Carnegie Institute of Technology, Pittsburgh, Pa., has recently been announced by Glen U. Cleeton, Head of the Department. If the plan is successful, the general endowment fund of the Institute will be increased by a gift of $1,000,000 from the Carnegie Corporation of New York in accordance with an agreement that the Corporation will contribute on July 1, 1946, two dollars for each dollar otherwise contributed by that date.

More than $150,000 has already been subscribed, leaving slightly less than $350,000 to be raised. Purposes for which contributions have been made include support of a professorship in printing, tuition scholarships, and research. Additional contributions will be accepted for these and other purposes which donors may specify. Over a period of years, contributions totaling $125,000 for support of a professorship in printing have been received from the United Typothetae of America. From other sources $100,000 will be sought to supplement endowment for instruction.

On January 15, the fund for scholarships exceeded $25,000. The Mergenthaler Linotype Company; Herbick and Held Printing Company, William G. Johnston Company, The Eddy Press Corporation, all of Pittsburgh; Hammermill Paper Company; S. Rosenthal Company of Cincinnati; and Traffic Service Corporation of Chicago have subscribed to the scholarship fund. Several alumni of the Department have also contributed to the fund. It is hoped that endowment for scholarships may be increased by $50,000 to provide income to defray tuition costs of needy and worthy students who otherwise might be denied the privilege of college education in the graphic arts.

Under the leadership of Raymond Blattenberger, Vice President of Edward Stern and Company, four Philadelphia firms have recently made contributions to start a research fund to be administered by the Carnegie Department of Printing. Up to January 15, contributors included Edward Stern and Company, National Publishing Company, Franklin Printing Company, and the Wilcox-Walter-Furlong Paper Company. The type of research to be undertaken will relate to problems of printing production and management. Results of investigations will be made available to the industry without restriction. The goal for research contributions to be sought before the Carnegie Corporation 1946 deadline is $200,000.

In announcing the plan, Professor Cleeton stated that the service rendered the printing industry by Carnegie Tech in providing professional education in the graphic arts since 1913 is the basis of the present appeal for financial support. This service, he stated, will continue regardless of the response from printers, publishers, equipment manufacturers, and suppliers. However, with added funds, the service can be expanded and made more effective, particularly in the field of research.

Committees composed of former students of the Department of Printing and other representatives of the printing industry are being formed in each city. These committees will work in cooperation with the Tech Printers' Alumni organization.

Kidder Names Agents

The Kidder Press Company, Inc. of Dover, N. H., has announced the appointment of sales agents in the United States and Canada. A. E. Marconetti, Inc., 11 West 42nd St., New York, N. Y., and C. P. Robinson, Graybar Building, New York will cover the Eastern and Mid-Western States and Canadian territory, and Harry W. Brintnall Company, 430 Howard St., San Francisco will serve the far Western United States and Western Canada.

ATTENTION NEWSPAPER EXECUTIVES!

Here is a Newspaper Rotary Color Press which is especially built for Comics in Color. A machine adapted to print and fold newspaper Color Comics, Comic Books, Color Catalogs, or various and sundry color publications.

HERE ARE THE SPECIFICATIONS:

1. Hoe Universal Multi-color (Pancoast type) Press.
2. Cylinders: Eight banked right, seven banked left, fifteen in all. Four formers, cylinders are four pages wide. 15 in. diameter, 8 column page, sheet cut 23⅝ in., plates bored to ¼ in.
3. Two offset folders at right angles and in the center of press.
4. Color Range: Twelve pages in full color, twelve in black. Full range is three colors and black.
5. Speed: 15,000 per hour.
6. Fountains: Undershot.
7. Paper Rolls handled with rack and hoist.

Here is a press that must be seen to be appreciated and may be inspected in Cleveland. This machine is offered by a company with many years experience in the printing equipment field.

The **M. L. ABRAMS** *Co.*
1639 SUPERIOR AVE.—CLEVELAND 14, OHIO
CHerry 1310

Adds Third Star to Army-Navy "E" Award

The Morley Company of Portsmouth, N. H., has been honored for the fourth time by the War and Navy Departments for its industrial contribution to the war effort. Announcement of the award on January 6 by Under Secretary of War, Robert P. Patterson, entitles this company to add a third star to its Army-Navy "E" Banner. This Portsmouth plant is engaged in the manufacture of the M1 protective eyeshield. The first star award was made on September 4, 1943, the second star was added on June 17, 1944. Management and labor alike share in this honor.

EXECUTIVE ¶s

Frank M. Tighe, who has been serving as sales manager of Certified Dry Mat Corporation, has been elected Vice President in Charge of Sales. A. B. Bradie, who has been president of Certified for the past year, has resigned. Mrs. George A. Kubler, vice president and widow of the founder of the Corporation, will be acting president until a successor is elected.

William Recht, general manager of the Rutherford Machinery Company, Division of General Printing Ink Corporation, has been appointed a member of the Printing Machinery and Equipment Manufacturers Industry Advisory Committee to the Office of Price Administration. Members of this Advisory Committee are invited to present price problems confronting the industry in respect to any or all of the following groups of printing machinery and equipment: Composing and typesetting equipment, printing and lithographic plate making equipment, printing presses, printers' bindery equipment, miscellaneous accessories and equipment designed exclusively for use with printing machinery.

• If the motor on your Linotype or Intertype needs major repairs, you will probably find it cheaper in the long-run to trade it in for a modern

CUSHMAN (OFFSET) MOTOR

• Send us the details today from the name plate of your motor, and we will gladly give you our proposal.

★

Cushman Motor Division

LINOTYPE PARTS COMPANY

WEATHERLY, PENNA.

Acclaimed by All!

• Zephyr Halftone Black
• Zephyr Super Black
• Zephyr Utility Black

Available for any job . . .
Sets with lightning rapidity . . .
Backs up clean in 30 minutes . . .
Dry as a bone in one hour . . .

Try them and you'll buy them.

SERVICE
FROM COAST TO COAST

Beneath this stack, experience, research and service are at your command.

Sinclair and Valentine Co.
MAIN OFFICE AND FACTORY: 611 WEST 129th STREET, NEW YORK, N. Y.
Albany, Baltimore, Birmingham, Boston, Charlotte, Chicago, Cleveland, Dallas, Dayton, Detroit, Havana, Jacksonville, Kansas City, Los Angeles, Manila, Miami, Nashville, New Haven, New Orleans, Philadelphia, San Francisco, Seattle

KIMBLE

CUSTOM-BUILT MOTORS

FINE CUSTOM-BUILT MOTORS
FOR THE GRAPHIC ARTS
INDUSTRY SINCE 1904

KIMBLE ELECTRIC
Division of Miehle Printing Press & Mfg. Co.
2005 WEST HASTINGS STREET
CHICAGO 8, ILLINOIS
DISTRIBUTED BY: AMERICAN
TYPE FOUNDERS

LASTING IMPRESSIONS
because . . .
WOOD DRY MATS can be molded with minimum pressure.
WOOD DRY MATS
WOOD FLONG CORPORATION
HOOSICK FALLS, N. Y.
NEW YORK CITY OFFICE:
551 FIFTH AVENUE, NEW YORK 17, N. Y.

At the January 15 meeting of the Board of Directors of the Pulitzer Publishing Company, Production Manager Charles J. Hentschell was elected a member of that body. Mr. Hentschell became production manager of the St. Louis *Post-Dispatch* in March 1941. The compliment to Mr. Hentschell's abilities is well earned and he has been receiving

Chas. J. Hentschell has been elected member of Board of Directors, St. Louis *Post-Dispatch*.

the congratulations of his many friends throughout the country. In 1935, Mr. Hentschell left the Minneapolis *Tribune* to become production manager of the St. Paul *Pioneer Press* and *Dispatch*. In that capacity, he supervised the erection of buildings in which to house the plant from which the papers are published, including the installation of new equipment. In March 1941, he resigned to take up his new duties in St. Louis. He has supervised the erection of the *Post-Dispatch*'s new plant which is completed except for the installation of new equipment, particularly new printing presses, the manufacture of which is being held in abeyance until after the war.

Henry M. Crosby, photo-engraving superintendent of the New York *Daily News* engraving department, after spending 15 months with General MacArthur's forces in Australia and New Guinea, returned to civilian duties at the *News* on January 2. Mr. Crosby was given military leave of absence by the *News* in August 1943 to serve as captain in the

Capt. Harry M. Crosby has assumed his duties as Supt. of Photo - Engraving Dept., New York (N.Y.) *Daily News*.

Army Transport Corps. A severe case of malaria terminated his army activities in November 1944. After a convalescence and a rest, he resumed his former civilian position. Mr. Crosby is the developer of the Kromolite dropout process.

A promotion in the tape division of Minnesota Mining and Manufacturing Co. has been announced by G. H. Halpin, vice president and general sales manager. Bernard W. Lueck, sales engineer for the last several years, becomes products sales manager of industrial "Scotch" masking tape, sandblast stencil and "Scotch-Rap," with headquarters in St. Paul. He joined 3-M in 1935.

Bernard W. Lueck has been promoted to executive duties by MMM.

Friends of A. C. (Jack) Cooper, J. M. Huber, Inc. salesman for Iowa, Nebraska and Minnesota will be glad to hear he is well on his way to recovery after severe injuries received in an auto accident last Fall.

J. M. Huber announces the appointment of William E. Rutenberg to its sales staff. Mr. Rutenberg has specialized

DON'T WAIT UNNECESSARILY for a No. 3A C&G Saw Trimmer

Decide now on the composing room saw you need and order for delivery when available. The full facts, and an illustrated circular, which shows many exclusive C & G features, including Angle Gauge, Left Hand Miter Vise, Positive Work Holders, and Universal Saw Blade and Grinding Attachment, will be sent upon request. You will need full production as soon as possible. Write today.

MILWAUKEE SAW TRIMMER CORP.
610 EAST CLYBOURN STREET, MILWAUKEE 2, WISCONSIN

in the catalogue and magazine fields. He has been night superintendent in the Chicago Cuneo plant. At one time he was Western Production Manager for McFadden Publications, a post he held for eleven years. Joseph S. Hart, Assistant General Manager of J. M. Huber, Inc., stated that Rutenberg will cover Metropolitan Chicago as well as the adjoining states of Michigan and Wisconsin.

A testimonial dinner in honor of R. Reid Vance was held at the Seneca Hotel, Columbus, Ohio, on January 12. The dinner commemorated 25 years of service by Mr. Vance to the Graphic Arts industries in the Columbus area. The dinner was sponsored by the Ohio Printers Federation and the Printing Arts Association of Columbus. Mr. Vance is executive secretary of both organizations. About 250 people assembled to pay tribute to Mr. Vance. Mr. Vance's activities are many. He is a director of the Ohio Association of Trade Executives, member of the Dispute Panel Section, Region 5 of the NWLB, chairman of the Printing and Publishing Division of the Ohio Safety Congress, has been active in waste paper collection drives, leader in Columbus Community Fund, Past President Columbus Exchange Club, Past President of Interclub Council of Columbus. He is a member of the University Club of Columbus, the Scottish Rite and Shrine, and American Legion.

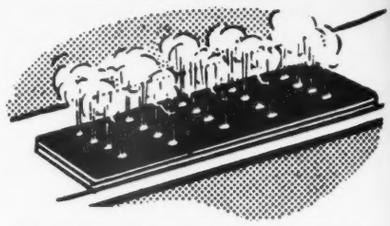
R. Reid Vance in whose honor a testimonial dinner was held recently.

Ralph E. Dickson, Ideal Roller & Mfg. Co.'s representative in San Francisco, Calif., retired in December 1944. Mr. Dickson has been associated with the Ideal company for almost 25 years, during many years of which he was superintendent of the Chicago factory. He has been in charge of the San Francisco office for eight years. Harry Dickson, district manager (and a brother of Ralph) will manage the Pacific coast territory. For the duration, Ideal states the San Francisco office will remain closed. As the result of Harry Dickson's appointment as western manager, Pacific coast customers will receive attention through several trips which he expects to make during the year.

Linotype's Midwest agency announces that M. Doyle Jacobs is now covering Wisconsin, Minnesota and the upper Michigan peninsula as Linotype production engineer. Mr. Jacobs served his printing apprenticeship on the Atlanta (Ga.) *Constitution* and later became well known on the West Coast and in the Midwest as a Linotype "swift." He will make his headquarters in Milwaukee.

STEREOTYPE PERFORATED GUMMED PACKING FELT

Important where considerable shrinkage is employed



Manufactured under Patent No. 1,967,444

Is More Flexible • Forms with the Mat • Dries Faster • Sets Instantly

Send for a Trial Order Today—Sheets or Cut Strips

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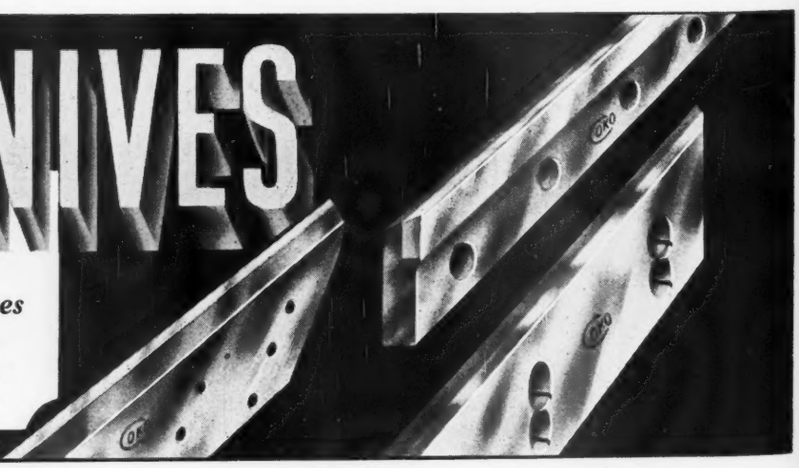

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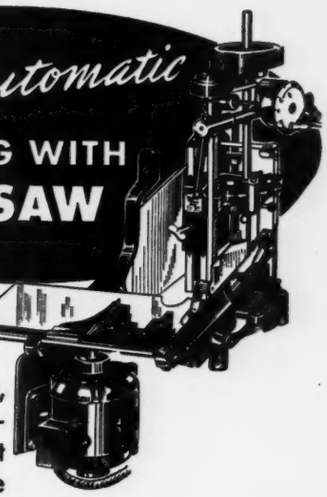

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WPB News

No Statement Needed

NO statement regarding manpower need be filed in making appeals under Limitation Order L-340 (Governmental Commercial Printing and Duplicating), the War Production Board announced on January 22 through amendment of the order. The amendment adds the following sentence to Paragraph (w) on the appeals procedure: "Regardless of the provisions of Priorities Regulation 16, no statement with respect to manpower information on Form WPB-3820 (or letter explaining why that form is not filled) need accompany any appeal."

Essential and Critical Activities in Graphic Arts

ON January 16 the War Manpower Commission announced a list of essential and critical activities to be used by Selective Service as a guide in the induction of men in the 26-through-29 age group. All activities listed are essential. Those activities printed in capital letters are critical activities. All technical, scientific and research personnel engaged in any of the activities in the list, whether or not the activity appears in capital letters or small letters, are regarded as being engaged in critical activities.

The listing by WMC of an activity or product as essential or critical gives the employer the right to demonstrate that the worker is irreplaceable in the production of products or rendering the services which have been listed as essential or critical.

Those activities related directly to the Graphic Arts industries are printed below:

29. *Communication Services.*—Magazines of general circulation which are devoted primarily to the dissemination of public information; newspapers and news syndicates; MILITARY, NAVAL, AND TECHNICAL CHARTS AND MAPS, INSTRUCTIONAL AND TECHNICAL MANUALS, and training literature; production of motion pictures (including technical and vocational training films for the Army, Navy, and war production industries); motion picture film processing, news reels; development of sensitized film; protective signal systems which supplement fire and police protection to military, public and private industrial and commercial establishments; radio broadcasting; RADIO COMMUNICATIONS (RADIO-TELEPHONE AND RADIOTELEGRAPH); CABLE SERVICE (LAND OR SUBMARINE); TELEGRAPH; TELEPHONE; television; production for essential activities of continuous forms with or without one-time carbon, and produced on rotary equipment; and production of salesbook-type forms contracted for by governmental agencies.

35. Technical, Scientific, and Management Services.—The supplying of technical, scientific and management services to establishments engaged in war production; union-management negotiation services; publication of technical and scientific books and journals; and the services of Federal Reserve System district banks and branches (does not include services of member banks of the Federal Reserve System).

Summaries of Recent WPB Actions

CONSTRUCTION — Interpretations 11 and 12 to L-41, Dec. 2, 1944. These interpretations to the construction order were issued to clarify provisions of the order that deal with annual cost limits under which construction may be performed without WPB permission and those governing building alterations that may be made in connection with installations of machinery or equipment permitted under Direction 2 of that order.

COATED PAPERS — Amendment to L-120, Dec. 13, 1944. Basis weight of process (machine) coated book papers was fixed for use in commercial printing and book publishing.

COTTON DUCK—Amendment to Direction 2 to M-91, Dec. 6, 1944. Because of continued shortages of cotton duck for military tentage requirements, the period during which the restrictions concerning "Operation of Looms to Produce Tentage Fabrics for the Army and Navy" shall be effective has been extended indefinitely.

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NEWSPAPERS — Amendment to L-240, Dec. 21, 1944. Changes in WPB's Newspaper Limitation Order provided a new method of determining quotas of certain types of small newspapers, established on Army and Navy allotment of print paper for certain types of condensed editions of newspapers for overseas personnel, and made minor clarifications of the order.

L-240, DIRECTION 5—Issued Jan. 20, 1945, by Printing and Publishing Division. Title: Computation of base tonnages. Explanation of formulas used.

LEAD—Amendment to M-38, Dec. 27, 1944. Most civilian uses for lead were restricted to the annual rate of 60 percent of the 1944 level through a complete revision of the lead order.

CELLOPHANE—Amendment to L-20, Dec. 5, 1944. Quota restrictions were lifted on the use of cellophane for the packaging, wrapping or sealing of cigarettes, cigars, chewing or smoking tobacco and bakery products. The annual consumption of cellophane for such purposes was formerly limited to 90 percent of the consumption in 1942. Cellulose caps and bands were removed from control.

PAPER MILL MACHINERY — Amendment to L-83, Dec. 11, 1944. Restrictions on delivery of used and reconditioned machinery were removed. Authorization is still required for delivery and acceptance of new machinery.

PROTECTIVE PAPERS—Amendment to M-286, Dec. 7, 1944. Certain protective papers may now be used for packaging, rubber and rubber goods, tobacco and tobacco products, coffee, tea, potato chips, corn chips, popcorn, certain drink powders and general printed products.

VINYL ACETATE—Revocation of M-240, Dec. 14, 1944. Because the present supply of vinyl acetate is now in excess of requirements, it was removed from allocation control.

Trade Convention Regulations Announced

ORGANIZATIONS planning to hold conventions, conferences, trade shows or group meetings after February 1 "will have to show how the war effort would suffer if the meetings were not held," Col. J. Monroe Johnson, Chairman of the War Committee on Conventions, announced on January 11.

"The job of the committee," Colonel Johnson said, "is to achieve the objectives set forth by Justice Byrnes—to relieve overburdened transportation and hotel facilities and conserve desperately needed scarce materials and manpower. The hundreds of messages already received from organizations of diverse interests indicate that the nation is solidly back of our efforts. The committee has decided that the yardstick it will use to measure the essentiality of any meeting is how the winning of the two wars we are now fighting will be impeded if the meeting in question were held to an attendance of 50 or canceled outright."

The committee approved the form of application required of organizations planning group meetings to be attended by more than 50 persons. Information required by the committee includes:

Whether the planned meeting is a convention, conference, trade show, or government meeting; the date and location of the proposed meeting and name of hotels or other facilities that will be used; attendance planned; previous frequency of meetings; location and attendance of last previous meeting; average attendance at similar meetings before the war and during the war; from what area those attending are drawn; what steps have already been taken to curtail attendance; why the objectives of the meeting cannot be attained through "Conventions by Mail"; why a group of 50 or less to whom powers are delegated cannot transact the necessary affairs of the organization and in what way and to what extent the war effort would suffer if meeting were not held.

Other decisions reached by the committee include:

(1) Industrial, business, labor, fraternal, professional, religious, civic, social and governmental organizations are included among those requiring permits,

(2) The issuance of a special permit to hold meetings of more than 50 does not guarantee transportation or hotel facilities or imply priorities for their use,

(3) The general exemption from the need for applying for special permits for

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meetings of less than 50 does not mean that the committee approved the holding of such meetings. It was emphasized that meetings of any size that directly or indirectly constitute a strain on transportation, housing facilities or other critical situations should be canceled immediately.

Application forms are available at all ODT regional and district offices, at most hotels, convention bureaus and from the national ODT office in Washington, D. C.

All applications should be sent directly to Secretary Clare, Room 7321 Interstate Commerce Commission Building, Washington 25, D. C. where they will be reviewed by the committee.

Relieved of Suspension Order

THE Chicago *Sun* was relieved on January 8 from terms of Suspension Order S-654, issued November 10, 1944, requiring the newspaper to reduce its normal consumption of newsprint paper by 886.89 T., WPB's Compliance Division reported.

During the second quarter of 1944, the *Sun* consumed 886.89 T. of newsprint in excess of a quota established by WPB's Printing and Publishing Division, subject to review of the Appeals Board of WPB. This quota was later found by the Appeals Board to have been too small a quantity for the Chicago *Sun*. The newspaper did not commence publication until December 1941, and hence had no quota established under provision of WPB's general newspaper Limitation Order L-240.

Because the Appeals Board's decision re-established the *Sun's* quota on a higher basis, the chief compliance commissioner concluded that a suspension order based on the *Sun's* earlier paper quota would not be equitable. Later developments showed that the *Sun* actually used less paper in the second quarter of 1944 than it would have been permitted to use under the amount that the Appeals Board found to be the newspaper's equitable share, WPB officials said.

A stay of the suspension order's terms was granted the Chicago newspaper November 14, 1944, and subsequent review of the case has resulted in the suspension order's revocation, WPB reported.

May Apply By Letter for Quota

PERSONS who do not have quotas for zinc or copper for the production of printing plates under Conservation Order M-339, and find it impracticable to carry on business under the existing restrictions, have been granted permission by the War Production Board to apply for a quota by letter, it was announced on January 11. The letter should contain information regarding the kind of plate to be manufactured together with what facilities are available for this purpose, WPB officials said.

Quotas will be assigned on an equitable basis with other persons in the industry. Materials will be allocated to the extent available if production of these items will not require the use of materials, facilities or labor needed for war purposes and will in no way interfere with war production.

Appeals from the provisions of this order shall be made by filing a letter referring to the particular provisions appealed from and stating fully the grounds of the appeal. Every appeal must be accompanied by a Statement of Manpower Information on Form WPB-3820 where a grant of the appeal, in whole or in part, would result in an increase over current production or in new production, WPB officials explained. If a grant of the appeal would not result in an increase over current production or in new production, the appeal must be accompanied by a letter to this effect, instead of Form WPB-3820.

WPB Explains Deletion

THE deletion of paper stationery and papeteries from List B of Conservation Order M-241-A (Paper and Paperboard) was intended to remove these items entirely from the order's restrictions, the War Production Board announced on January 20 through issuance of Interpretation 4 to the order.

The deletion, on December 19, 1944, raised the question whether the items remained subject to the order's Paragraph (e) (1). In stating that they did not, the interpretation added: "It fol-

Amendment—On Page 200 of the 1945 Reference Issue of *Printing Equipment Engineer*, under Cylinder Presses (Single Color), the Miller (CY) and Miller (CK) Cutters and Creasers were not designated as such. In identical tabular form we are printing below that section of the Cylinder Press specification table referring to the Miller Cutters and Creasers. If you wish, you may trim out this corrected section of the table and tip it in place on page 200 of the Reference Issue. Properly, cutting and creasing machines should not be listed under cylinder press heading, but we have done so merely for the sake of convenience.

CYLINDER PRESSES (Single Color)

MAKE AND MODEL	Maximum Sheet	Minimum Sheet	Maximum Form in Chase	Impressions Per Hour
Miller (CY) Cutter and Creaser[5]	28 x 41	11 x 17	28 x 38	4000
Miller (SY)[5]	28 x 41	11 x 17	25 x 38	4000
Miller (SK)[5]	40 x 52	11 x 17	38 x 49	3250
Miller (CK) Cutter and Creaser[5]	40 x 52	11 x 17	38 x 49	3250

[5]Miller Printing Machinery Co.

lows that the mere packaging of correspondence sheets with envelopes is not regulated. However, since envelopes, in all styles except expansion types, are still included in List B, a converter may not consume in manufacturing envelopes more than 110% of the amount he consumed in the manufacture of envelopes in 1942. There is no prohibition in Order M-241-A against a converter buying envelopes from other manufacturers for resale either as envelopes or for use in making up papeteries."

Suspension Order Issued

THE J. S. Publishing Corporation, 45 Rose Street, New York, N. Y., manufacturer of greeting cards and games made of paper, was directed not to consume more than 125,700 lbs. of paper for greeting cards, and 25,140 lbs. of paperboard for packaging the cards until 1946, the Compliance Division of WPB reported on January 12.

Suspension Order S-689 charges the J. S. Publishing Corporation with violation of Order L-289 between April 1, 1943 and March 31, 1944, when the firm exceeded its permitted quota by 989,818 lbs. of paper and 185,364 lbs. of paperboard. Order L-289 curbs excessive use of paper for greeting cards and illustrated post cards, officials said.

The Compliance Division ordered the corporation to confine its paper usage for greeting card manufacture during each calendar quarter of 1945 to 31,425 lbs. of paper and 6,285 lbs. of paperboard which the firm uses to package the cards for delivery and sale.

Fractional Horsepower Motor Sale Controls Explained

THE War Production Board on Jan. 13 issued an explanation of controls over the sale of new fractional horsepower motors below one horsepower. This explanation was believed advisable because such motors are in short supply and because many persons apparently do not understand the restrictions regarding their sale, WPB said. A certain number of fractional horsepower motors are being allocated each month for civilian and commercial replacement purposes. It is important to the war effort that these be sold and delivered strictly in accordance with prescribed regulations, WPB reported.

Must Deduct Paper From Quotas

BROWN & BIGELOW, 1286 University Avenue, St. Paul, Minn., commercial printer and manufacturer of greeting cards and novelties, has been ordered to deduct 2,055,000 lbs. of paper from permitted quotas during 1945, because the firm violated two War Production Board regulations, WPB's Compliance Division reported on January 19.

Brown & Bigelow does a large volume of advertisement printing, including calendars, desk pads, blotters and memo pads. The corporation violated the two WPB orders in 1943 and the first three quarters of 1944, the Compliance Division charged.

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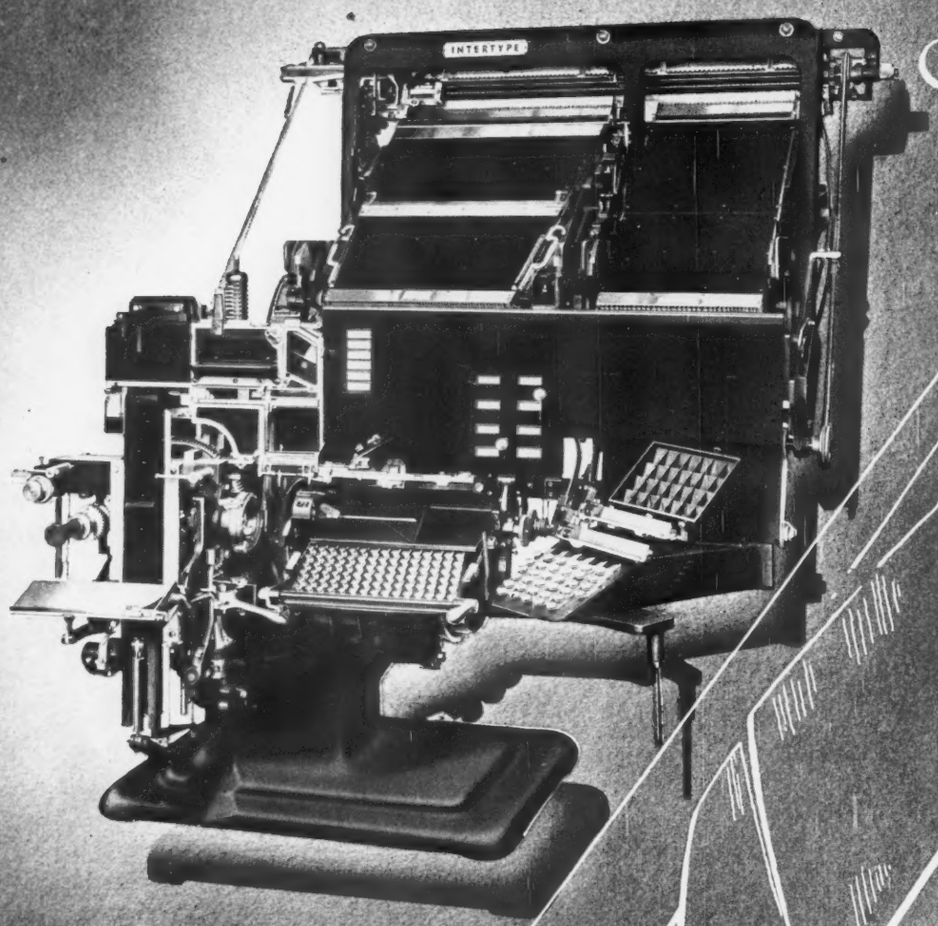

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